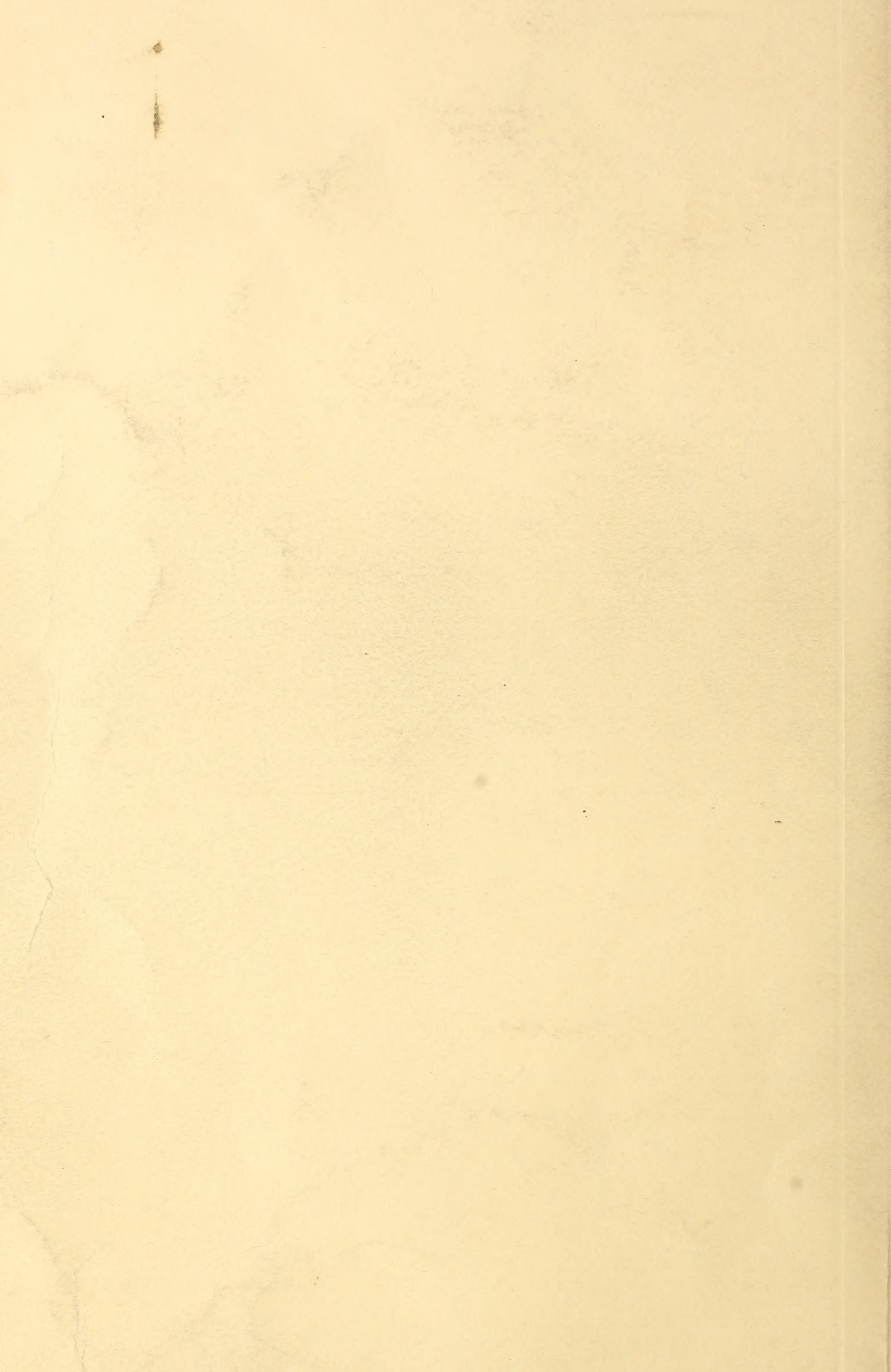


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6223

1928

Barnard's Seeds



The W. W. Barnard Co.

Seedsman

3942 S. Federal St.,

Chicago, Illinois

D. N. Shoemaker

Hints to Those Who Have a Small Garden and Little or No Experience

First of all, as soon as the ground has dried out it should be dug fully a spade deep, and if it has not been used previously for growing plants the soil should be turned over and left in a rough state for a few days so that the sun and air may sweeten it; at this time a light dressing of Wood Ashes or air slaked lime would correct any acidity (sourness) of the soil and also prove beneficial to the plants grown.

A good spading fork is a necessity, for you can turn over the soil easier than with a spade; forked soil will break into smaller pieces, while spaded soil is inclined to remain in slices just as it was turned up, and requires more effort to get it fine and mellow for the seeds.

Push the spade or fork down as deep as you can, so as to loosen the under soil; you won't have to lift the whole mass and turn it over, but it is necessary that the soil be broken as deep as possible.

The soil should not be so wet when spaded that it is "sticky" for when it dries out it will remain in the same lumpy condition as when first turned. Take a good handful of dirt and squeeze it—if it sticks together it is too wet to work; better wait a day or two before spading, then break the lumps with the hoe, and finish the work with a steel garden rake. Sandy soil can be worked several days earlier than clay.

If the ground is low and inclined to hold water late in spring, or during wet spells in summer, you will find that it will pay to underdrain, provided you can get an outlet for the tile. If you have a city garden, this will probably be out of the question, and you will have to wait until the ground gets dry enough to work.

If the soil is poor or "worn out," an application of pulverized Sheep Manure, Bone Meal or Commercial Fertilizer may be used to great advantage; spread it broadcast on the surface after digging the ground and before leveling, then in the process of leveling and preparing the soil the manure will be thoroughly mixed upon the surface where all plants will be sure to be benefited.

Seed should be sown in straight rows over the patch, as the making of beds is a waste of space and the walks between the beds get so packed that the soil is spoiled for use the following season. DO NOT SOW SEED TOO DEEP; this is a common error. The smaller seeds such as Lettuce, Onion, Radish, etc., should only be covered from a fourth to half an inch; Cucumber and Melon about one inch; Corn, Peas and Beans may be covered two inches, but in every instance be sure to press the soil firm over the seed sown after covering. Another error is frequently made in sowing seed too thick; it will be found an advantage to thoroughly mix small seed (especially Carrot) with dry sand or soil and sow the mixture in the seed furrow; this will keep the seeds apart and help in the process of thinning out or transplanting plants to stand at their proper distance apart in the rows.

Do not blame the seedsman when the seeds fail to come up. If the seeds are planted too deep, they either rot in the cold soil, or, if germination does take place, the tender shoot dies before it can reach light and air.

Seeds of the so-called hardy vegetables, like the onions, extra early peas, etc., may be sown as early in spring as the garden can be worked. Beet and lettuce seed may be sown two or three weeks earlier than the tender vegetables, like the beans, sweet corn, cucumbers, etc. Tomatoes, eggplants and peppers are planted later in the season when the ground is thoroughly warmed, provided they have not been started in the hotbed.

If you make an open-ground seed-bed for such plants as cabbage, celery, peppers, tomatoes and others that require transplanting be sure that it does not become dry; neither should it be "soaked" with water, for too much moisture will make the plants "damp off" even if they are in the open air. Experience is the best teacher, and if you watch the plants carefully, you will quickly discover when they need a drink.

The little plants must be moved from the seed-bed or frames to their permanent quarters as soon as they are large enough to handle. Don't take all of them out of the seed-bed at once and let them lie exposed to the air and sun. Take up a few at a time, as you need them; get them into the new home as quickly as you can; spread the rootlets in the bottom of the hole, don't drop them straight down so that they stand in a solid mass; press the soil firmly around and over the roots, so that there will be no air-spaces; if the sun is hot, or there is a drying wind, shade the plants for a day or two with berry-boxes or paper cones.

If the seedlings have made a rapid growth in the frame or bed, and seem to be soft or tender, trim off some of the larger leaves, so that the moisture will not be thrown off so rapidly.

The best time to transplant is just before a rain, or during the early part of the wetting; the ground then is fairly loose and can be packed around the rootlets. The worst time is after a heavy shower or rainy spell, for the ground is too wet, and it is quite likely to bake hard on the surface.

If you keep the top-soil loose, you won't have to water the plants unless there is an extremely dry spell. But if you do use the hose, make a good job of it—give the plants a thorough drenching, for a little water is almost as bad as none at all. The best time is at night; by morning the soil will be slightly dry and can be hoed or raked so as to form a loose soil mulch which will retain the moisture in the lower soil for several days; if the plants are well cultivated, they won't mind a dry spell. The hoe and rake produce better vegetables than the hose.

One of the most important things to insure success and have good vegetables is to keep your garden weeded and cultivated often. Keep the surface loose at all times.

PLANTING TABLE for SMALL VEGETABLE GARDENS—See Inside Back Page of Cover

We trust that our customers will fully realize that it is to our interest to supply none but the best quality of seeds but with the best of management and good seeds there will be an occasional unaccountable failure.

We give no warranty express or implied, as to description, quality, productiveness, or any other matter of any seeds, bulbs, or plants we send out, and will not be responsible for the crop.

GOOD LAWN GRASS MIXTURES

WILL MAKE A BETTER LAWN THAN TURF OR SOD

MAKING A LAWN—How and When to Sow Lawn Grass Seed—The soil should be rich and carefully prepared by being pulverized. You cannot hope to get a good lawn on the soil that came from the cellar, 8 or 10 feet below the surface. If you are building a new house, make the contractor save the top soil, provided it is not on filled land. If the soil is not suitable, have enough good soil hauled in to make a top surface a foot or more deep. A thick, rich green turf, that will look well in a dry time, will only come on deep, well-fertilized soil; if you have good soil rightly prepared, you will have a good lawn. The best soil is a good medium texture; the surface should be thoroughly pulverized and smoothed to the desired grade; remove all large stones, roots and hardened pieces of earth that cannot be readily broken; ample time being allowed for the thorough settling of the soil, which is greatly aided by a few heavy showers of rain. When the soil is firm, level and suitably moist, sow **Lawn Grass Seed** at the rate of 75 to 100 lbs. per acre—one lb. will sow 10x20 ft. (or 200 square feet). It is unwise to be too economical in the quantity of seed used, if the best results are desired. The seed should be sown broadcast and as evenly as possible, then give a thorough rolling or pat well with the back of a spade. The seed must be well firmed in the soil. When the young grass attains a height of 4 inches, carefully mow with a sharp scythe. After this, according to the season, it should be mown with a lawnmower every week or ten days.

GENERAL SURFACE RENOVATING.—When your lawn has been established, you will find it to your advantage to lightly re-seed each season. As early as possible carefully rake off all dead leaves, etc., and give the lawn a dressing of our pulverized **SHEEP MANURE** or **PURE BONE MEAL** at the rate of at least 500 pounds per acre, and rake in, after which sow our **Lawn Grass Seed** at the rate of 25 lbs. to 50 lbs. to the acre, or 1 lb. to about 500 square feet, according to the condition of the lawn; after sowing roll thoroughly or pat with the back of a spade.



Choice Lawn Grass-Mixture

A combination of various native and foreign dwarf-growing, fine-leaved grasses, carefully balanced and blended, with a view of producing a turf that will retain its rich green color throughout the entire season.

This mixture is much to be preferred to any single grass; it matures at different seasons of the year, thus keeping the green sward in good color and condition during the hot weather, not losing its color, as the single variety is liable to do.

Mixture for Quick Effect

There is considerable demand for a grass seed that will produce a quick-growing turf. For this purpose we have prepared a mixture of a few strong-germinating, vigorous-growing grasses which will produce a turf of fair quality within a few weeks after seeding. The grasses in this mixture are mostly annuals and biennials, and such a turf could be relied upon only for one or two seasons. A permanent lawn could be secured, however, by re-seeding at any time with Our Choice Mixture.

"Shady-Lawn" Grass Seed

On nearly all lawns there are shaded, bare and unsightly spots on which the owners have difficulty in getting a stand of grass; for such places this mixture is adapted. It is composed of dwarf-growing grasses which are found naturally growing in such places. Should the ground have become "sour" or drainage defective, it is apt to be covered with moss. If such is the case, the moss should first be removed by the use of a sharp toothed rake, then give a liberal sprinkling of wood ashes, lime or land plaster to sweeten the soil, stir thoroughly into the surface soil and then sow "Shady-Lawn Grass Seed" at the rate of one pound for 200 square feet, or 75 pounds to 100 pounds to the acre for a new lawn; for old lawns sow seed in proportion, according to the conditions.

White Clover

Mixed with other grasses for lawn purposes this is very desirable on account of its creeping stems. It spreads rapidly and acts as a binder; very hardy, and remains green throughout the season. Sow 6 to 8 lbs. per acre.

SELECTED VEGETABLE SEEDS

ASPARAGUS

One ounce will produce about 500 plants.

Asparagus Seed should be sown early in spring, on rich, light soil, in drills a foot or more apart, covering the seed an inch deep. Thin to three or four inches and keep the ground mellow and clear of weeds the first season by frequent hoeing.

This delicious vegetable can be grown from seed, but, as a general thing, it is more satisfactory to purchase two-year-old roots; these should be set so that they will stand about 15 inches apart, in rows 3 feet apart. Before setting, be sure that the soil is spaded or plowed very deeply. The crowns of the plants may be covered with 4 or 5 inches of soil. In our northern gardens it would be well to mulch the bed with manure and straw; in the South this mulching will not be required, but the beds should receive a good coating of manure or other fertilizer during the autumn season. The shoots should not be cut the first year after setting the bed, but the second season the larger shoots may be cut. The

third season and thereafter the crop can be cut often enough to prevent any of the larger shoots maturing. Some of the top should be allowed to grow during the summer, but late in the autumn rake off the dead tops and apply the fertilizer.

Bonvallett's Giant. This giant variety not only combines high productive power and lasting quality, but it withstands the rust so frequently disastrous to Asparagus beds.

Palmetto. A large, dark-green variety.

ASPARAGUS ROOTS

Our two-year-old Asparagus roots are heavy, clean stock that will make a vigorous growth the first season.

Bonvallett's Giant. Two-year-roots.

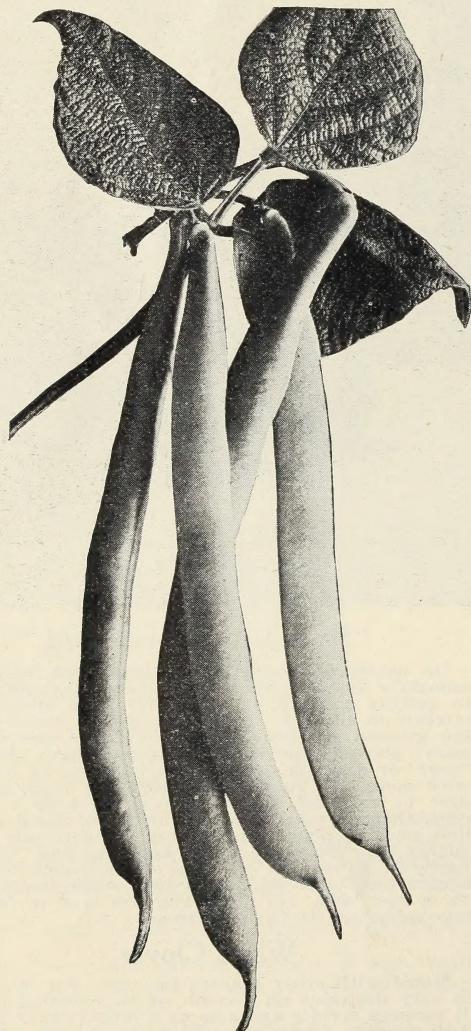
Palmetto. Two-year-old roots.

Conover's Colossal. Two-year-old roots.

BEANS, Dwarf or Bush

Culture. Beans are easily frost killed, so plant wet weather will rot the seed in the ground and lack of pods. Hand cultivated beans can be sown

them at Corn planting time, on light, dry land. Cold, fresh manure causes a rank growth of vine with in rows as close as eighteen inches, but in rich soil with horse cultivation, thirty inches is required. Drill six beans to the foot and cover one inch deep, or plant four beans to the hill, eighteen by twenty-four inches apart. Two pounds of seed should plant 200 feet and sixty pounds an acre. Plant every third week for a succession up until August 1 in the central states. Shallow cultivation only should be given at all times and do not cultivate when the plant is in bloom as the plant will drop its blossoms never cultivate when wet, as it causes rust. Pick beans before the bulge of seed appears and pick them clean to continue the plants bearing. It may prove an advantage to allow some of the later sown beans to ripen and use as shelled beans during the winter, no matter what variety or color they may be; they are all good eating.



Stringless Green Pod

GREEN-PODDED VARIETIES

Stringless Green Pod. A splendid bean for home use. It is hardy and early, so that several plantings can be made during the season. The plants are dwarf, sturdy and yield abundantly. The pods are round, of good size and of exceptionally fine quality, the special merit being that they are strictly stringless. This, together with their brittleness and tenderness and good flavor, places the variety among the very best of the green pod sorts; will develop pods to an edible condition in 42 days.

Bountiful. An improved Long Yellow Six Weeks, Being earlier, hardier and producing better and larger pods and more of them. Pods grow to large size, are broad, fleshy and stringless. Ready to pick in 45 days.

Longfellow. This is an excellent variety to grow for either home use or for the market. It bears profusely, and the long slender pods are attractive to the buyer and their fine quality meet the demands of the most critical. This is a very desirable bean for the late planting.

Red Valentine. Improved Round Pod. One of the best known of the green-pod varieties. It is very hardy and a reliable yielder.

Full Measure. A bean of recent introduction. Medium early, producing an abundance of long, round pods that are stringless, of fine quality and of attractive appearance.

Black Valentine. An extra early variety and therefore suitable for late planting; will stand early and late frosts. The pods are almost round, of firm fiber, consequently it is a suitable shipping variety.

Refugee, or 1000 to 1. A late variety, very attractive pods, round and small and one of the best canning and pickling sorts.

White Navy. Valuable chiefly as a field bean and considered by many the best baking variety.

BEANS, Pole Lima

Culture. Plant in hills about three feet apart, and one to two inches deep, using five or six seeds to each hill, and set a pole firmly in the center. Manure liberally in the hill with well-decomposed fertilizer. Thin the plants, leaving three in each hill. Many cultivators consider it best, in planting Limas and other flat beans, to place the eye down, claiming in this way that they will germinate more quickly.

One lb. will plant about 50 hills.

Early Leviathan Lima. The earliest variety of Pole Lima; produces pods in clusters. The best variety where the season is short.

King of the Garden Lima. The pods are of enormous size, many specimens measuring from 5 to 6 inches, and some containing five beans to the pod, all perfectly formed and of superior quality.

BEANS, Dwarf Lima

Culture. As the lima requires more heat than other beans, a failure will follow a too early planting. The bean when favorably planted throws out from what we term the bean's eye a stout root; this root in turn lifts the bean above the ground. The bean then opens its halves or false leaves, or cotyledons, and the true leaves soon follow. If in planting the bean is thrust into the soil eye down, and just below the surface, the bean is in a favorable position to begin its growth. However, the crop can be secured though with a lesser percent of germination by dropping the bean in any position.

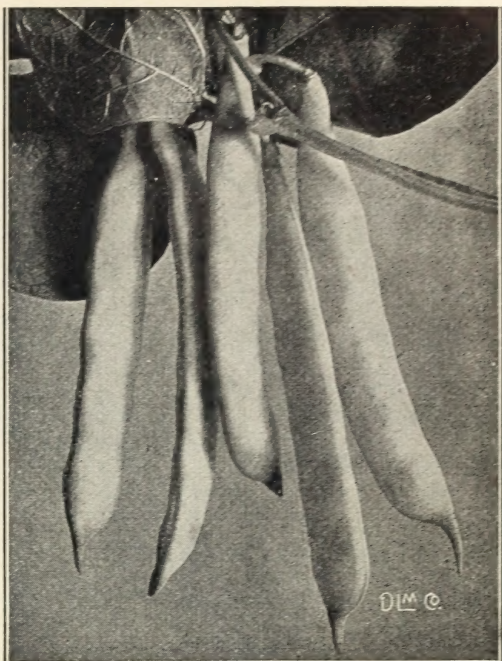
Bush or Dwarf Limas are earlier than pole limas and are planted in twenty-four inch drills, six inches apart in the row.

One lb. will plant about 50 feet of a row.

Burpee's Dwarf Lima. Plants make perfect bushes from eighteen inches to two feet high. They are sure croppers and immense yielders. Pods as large as those of the Pole Lima, and contain beans of the best quality.

Dreer's Dwarf Lima. Thick pods and large thick beans, three or four in a pod.

Henderson's Bush Lima. Valuable on account of extreme earliness; productive, tender, and delicious. The dry beans are small and white. A good variety to use for canning.



Hodson Wax Bean

BEANS, Dwarf or Bush, Wax or Yellow Podded Varieties

Golden Wax, Improved. A medium early variety and a heavy cropper, on vines of vigorous bushy growth, with good rust-resisting nature. The pods are golden yellow, fleshy and solid, brittle, waxy texture and have an exquisitely rich butter flavor, excellent for home and market garden.

Challenge Black Wax. The earliest of all, very dwarf in habit of growth. Pods are round, attractive in color, and crisp and tender in quality.

Davis Kidney Wax. It is a reliable and exceedingly heavy yielder, with the merit of maturing early and very evenly. The pods are attractive, being long and straight and of a beautiful waxy white that does not discolor in cooking. The flesh is close-grained and of fine fiber. The seeds are pure white, kidney shaped and are excellent for cooking either green or dry.

Wardwell's Kidney Wax. Almost entirely free from rust and spots. The pods are long and showy, very tender, stringless and of excellent quality.

Hodson Wax. This is a splendid yielder, one of the largest podded of the wax varieties. It is an exceptionally good bean for the shipper, the pods holding their form and color a long time after they are picked.

BEANS, Pole or Climbing

Culture. Pole beans are even more sensitive to cold and wet than the dwarf varieties, and should be sown two weeks later. After settled warm weather set poles four to eight feet long in rows four feet apart and extending north and south, the poles being three feet apart in the row. Around each stake plant five to eight beans, two inches deep.

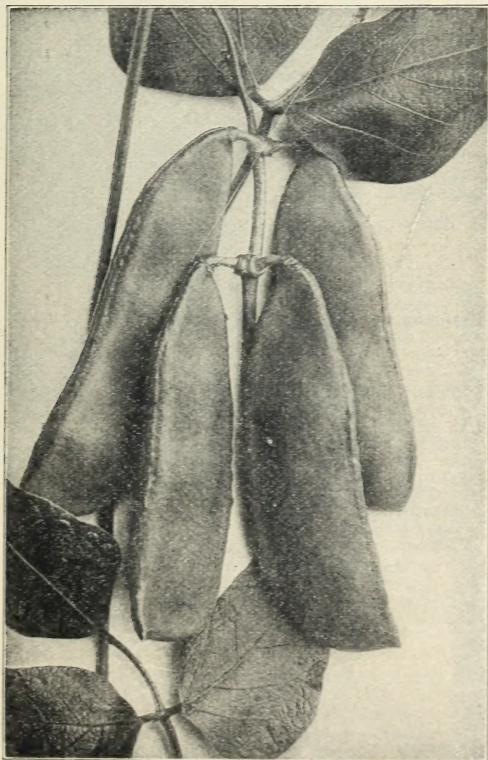
One lb. will plant about 50 hills.

Kentucky Wonder, or Old Homestead. Pods green, nine inches or more long, nearly round, fleshy, stringless, and of excellent flavor. Dry beans, long, oval, dun-colored. It is an early and most prolific variety.

Cut Short, or Corn Hill. An old variety that is in favor for planting among

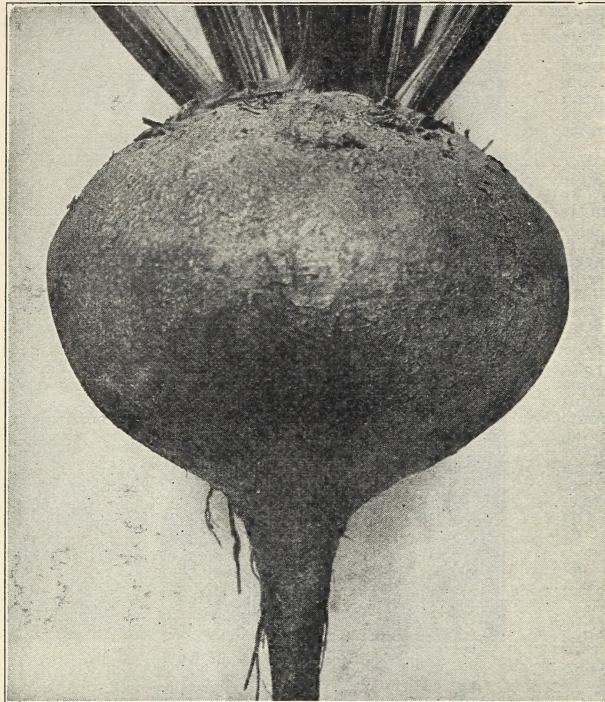
corn.

Horticultural (Wren's Egg, or Speckled Cranberry). An excellent corn bean.



Burpee's Bush Lima Beans

BEETS



Selected Edmands Beet

- Early Blood Turnip.** An old and standard variety.
- Crosby's Egyptian.** This beet is perfect in shape, and deepest red, almost black, in color. Its fine color and superior quality make this one of the best beets.
- Eclipse.** This is not an extra early beet, but if sown late, it is valuable for winter use. Its rapid growth, neat globe shape with small top and bright crimson color, make this a most popular sort.
- Improved Long Dark Blood.** Flesh dark red, zoned with lighter shade, tender and sweet.

MANGEL-WURZELS, or CATTLE-BEETS

One ounce for 100 feet of drill; 5 lbs. for an acre.

- Mammoth Long Red.** On good soil sometimes grows twenty-four inches long. Dark leaves; skin bright dark red; flesh white with veined rings of rose-pink. An excellent keeper; nutritious and milk-producing.
- Golden Tankard.** A yellow-fleshed variety highly prized by dairymen for milk-producing qualities.

SUGAR BEETS

- Klein Wanzleben.** White flesh. Contains much sugar.
- Lane's Imperial Sugar Beet.** Forms a large root, long and tapering. Snow white flesh.

SWISS CHARD, or SPINACH BEET

This kind of beet is grown exclusively for the numerous, fleshy, tender leaves and leaf-stalks, which are superior to those of other beets for use as greens. Later in the season the wax-like leaf stems are cooked like asparagus or are pickled. This beet does not make a large root, but is a delicious summer vegetable when cut young and used for "greens"; you can cut right down to the ground, and new shoots will soon spring up and make a fast growth. This variety we offer has large, broad white stalks and midribs or chards. It is well worthy of a place in the home garden as well as for market use. Swiss-Chard is sometimes called Leaf Beet, Spinach Beet, Sea Kale Beet and Silver Beet.

Swiss Chard.

BORECOLE (See Kale)

BROCCOLI

Culture and use are identical with that of Cauliflower.

One ounce of seed for 2,000 plants.

- Early Purple Cape.**
- White Cape.**

BROSSELS SPROUTS

These are miniature cabbages produced from the side of the stalk. They are regarded as a great delicacy boiled and served in the same manner as Cauliflower. Sow in seed bed in May; transplant and cultivate like cabbage.

Sow the seed one inch deep as early in the spring as ground can be worked, and for succession, every two weeks up to the first of July, in drills twelve to fourteen inches apart, and when well up thin to from four to six inches. The young plants removed in thinning are excellent cooked in the same manner as spinach. Take up the roots in October and store in cellar like potatoes. Covered with sand they will keep in nice, tender condition for winter use.

One ounce will sow 50 feet of drill; 5 to 6 pounds are required for an acre

Selected Edmands. Good for bunching, and is a standard main crop beet. Its uniformity, handsome appearance, small top, and single tap root commend it most strongly to the market gardener, and for table use no other variety can equal it in fine quality. The skin is deep blood-red in color, flesh dark red, sweet and tender.

Crimson Globe. Handsome in shape, a little deeper than round, with a smooth surface and small tap root. Flesh deep crimson, ringed and zoned. Not only desirable for bunching for early use, but it is good for main crop.

Detroit Dark Red. A medium early globe-shaped beet of excellent quality. It is especially esteemed on account of its dark-red color which extends entirely through the beet, and without the light-colored rings seen in some varieties. The beets are smooth and handsome.



Swiss Chard.

CABBAGE

Culture. Cabbage grows successfully on a wide variety of soils and experience points to liming, deep plowing and heavy manuring as successful practices.

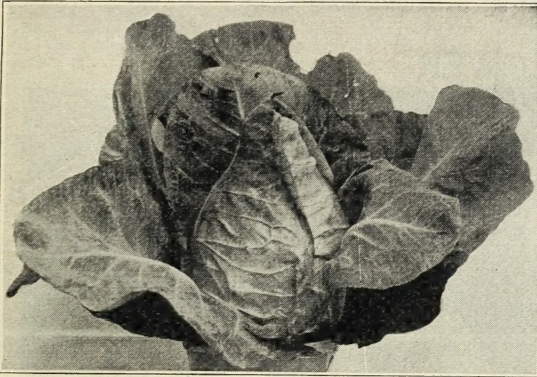
Cabbage plants when properly hardened by gradually being brought to a low temperature and the quantity of water in them diminished, will stand considerable freezing. Yet a cabbage plant raised at a high temperature and full of water will be killed by even a light frost.

For plants of the earliest sorts, sow seed in January or February under glass, and prick out in flats or frames about 2 inches apart each way. Transplant to open ground as soon in spring as the land can be properly prepared. A rich, warm, fibrous loam is best. All plants are best when grown without check so let as much soil adhere to the roots of the plant in transplanting as will hold, and set up to the first leaf. At this time the plant should have three or four pairs of leaves and be four to five inches high.

Have the plants in the rows 20 to 24 inches apart, and rows at least 2 feet apart. Give thorough cultivation and irrigate in dry weather if practicable. A little nitrate of soda applied around the plant is of great benefit. Potash application, such as wood ashes, may also do much good. For late Cabbage plants, sow seed in drills in open ground during April and May, and transplant in June and July, giving the plants more room than allowed for early Cabbages. Dusting with tobacco dust, insect powder, slug shot, etc., are good and safe remedies for some of the insect pests attacking plants of the Cabbage family.

When club root appears, lime the soil heavily and do not plant brassica, that is, turnips, cauliflower and kindred crops upon this soil for two or three years.

An ounce of seed produces 1,500 to 2,000 plants; one-half pound to transplant for an acre.



Cabbage, Early Jersey Wakefield

Early Jersey Wakefield. Long recognized as the best earliest marketable cabbage. In size, medium; in shape, pyramidal with pointed peak. Its uncommonly fine heading qualities, together with its fitness for wintering in cold frames, pleases the most critical gardeners. Our strain of seed is of superior quality.

All Head Early. Heads flat, deep, and solid; valuable also for late. Seeds sown in July and set out in August will make fine heads. Largely planted by market gardeners.

Copenhagen Market. This is very heavy and solid, like the "Ball-head" type of cabbage; makes a fine, large, globe-shaped head with well-developed outside leaves, but is very much earlier in maturing than any of the Danish Cabbages, in fact as early as Early Jersey Wakefield, and will give a much heavier yield per acre than that variety. It is short-stemmed, the heads being produced almost on the ground. The leaves are tightly folded around each other, which permits close setting of plants.

Glory of Enkhuizen. A very good cabbage. Medium in size, forms a ball-shaped head which is very firm and of good keeping quality. Matures about two weeks later than Copenhagen Market. This is a desirable cabbage for home use. It is a valuable second-early for those who grow for the market.

Winningstadt. An old and famous type of second-early cabbage. It makes a large, conical head, about ten days later than Wakefield. Color, a bright, glossy green. Valuable not only for early use, but as a winter cabbage. A vigorous grower, it thrives even under unfavorable conditions.

Early Summer. Matures about ten days later than Early Jersey Wakefield. Heads are large, nearly round, somewhat flattened.

All Seasons. A splendid main crop sort, much grown by market gardeners; is also an excellent variety for home use. Remarkable for its ability to stand hot sun and dry weather. Makes solid hard heads, of large size.

Holland. The superior merit of this variety is the hard heading and long keeping quality. Heads medium size; white. If properly stored, they will be found when taken up in spring to be in perfect condition.

Selected Late Flat Dutch. It grows very large, is remarkably hardy, a sure header, uniform in shape, size and color. Few varieties can approach this for superior quality. Market gardeners grow this very extensively for a late crop.

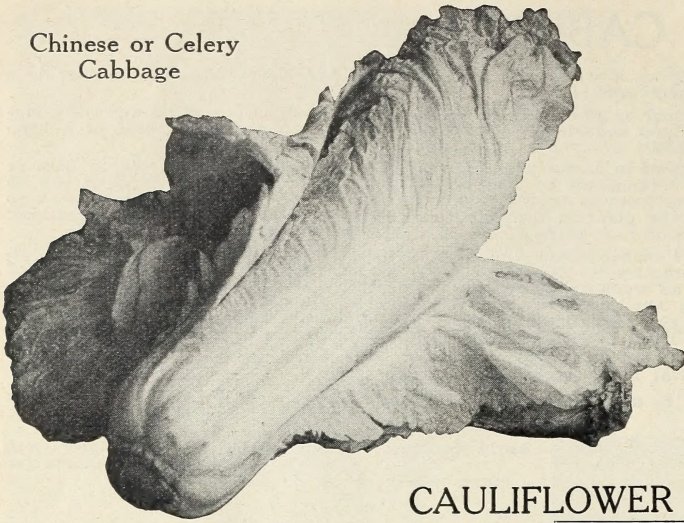
Mammoth Red Rock. By far the best, largest and hardest heading red cabbage in cultivation; very uniform in size, weight, solidity, and deep red color. The heads grow to weigh 10 or 12 pounds.

American Drumhead Savoy. The best of its class for home use and market. Heads large, solid and compact. Has rich, sweet flavor of the cauliflower when cooked.



Cabbage, Late Flat Dutch

Chinese or Celery
Cabbage



CHINESE, or CELERY CABBAGE

Chinese, or Celery Cabbage

This vegetable is called Pe-Tsai, or Cut Cabbage, by the Chinese gardeners, and is beginning to attract attention in America. It does not form a cabbagehead, but when grown to its full size resembles the Cos Lettuce, and the outer leaves may be used during its growth. The flavor is mild, and it is used either as a salad or cooked. The plants require plenty of room, and should be set in rows 2 to 3 feet apart and 15 inches apart in the row. Seed should be sown after July 1st, as early plantings run to seed.

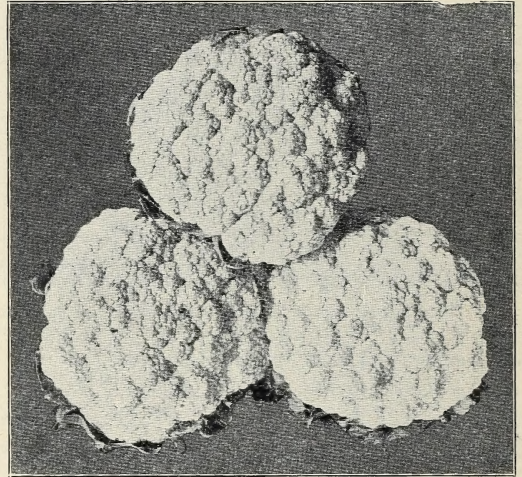
CAULIFLOWER

For early use, sow in hotbeds in January and February. When plants are large enough, transplant three inches apart in boxes or other hotbeds until time to plant out. If hardened off they are seldom injured by planting out as early as the ground can be worked, 2½ feet apart each way. The early varieties should be brought to maturity before summer sets in.

One ounce of seed will produce about 2,000 plants.

Snowball. For main crop and for every purpose except for first early, or for culture under glass (for which we recommend the Extra Early Dwarf Erfurt).

Extra Early Dwarf Erfurt. Best for Forcing. Good for open ground. Dwarf and very solid, with short outside leaves. Can be planted 20 inches apart each way.



Snowball Cauliflower

CARROTS

For early, sow in spring as soon as ground can be worked, in drills 15 inches apart, covering one-half inch. Carrot seed is slow to germinate, and therefore the soil should be pressed closely about the seed. It will be an advantage to mix the seed with sand or soil before sowing. For the main crop, sow from the middle of May to the first of July. Thin out in rows from 5 to 6 inches apart. Hoe often and deeply between the rows. Light, sandy loam, richly manured, is the best soil.

One ounce will sow about 100 feet of grill.

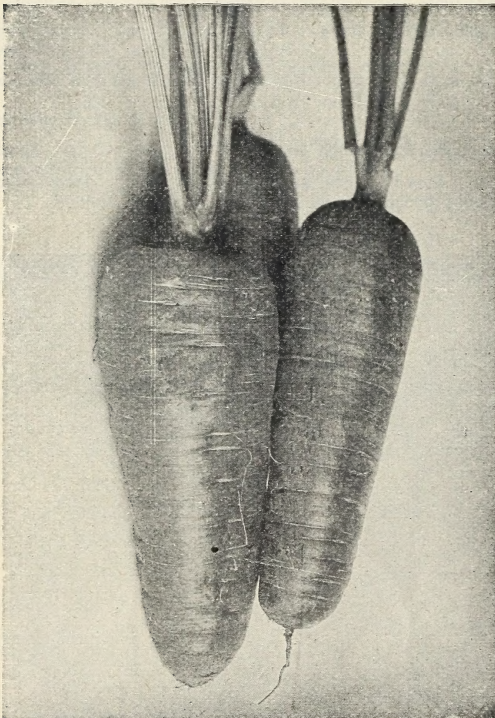
Improved Danvers. Color is handsome orange red. Skin smooth with very few indentations. In quality it has no superior. The flesh is close grained, sweet and of good flavor. An enormous yielder.

Chantenay. Deep red flesh, fine grained and sugary. One of the best for home or market garden. It is early, grows about six inches long; stump rooted, always smooth. A heavy cropper.

Early Scarlet Short Horn. Short, nearly round, good for shallow soil. Adapted for forcing for market and culture for early home use. Deep orange in color.

Ox Heart, or Guerande. It is intermediate between the half long horn varieties. Roots are about six inches long, cylindrical in shape, and rich orange color. The flesh is fine grained, little core.

Improved Long Orange. Requires deep soil; plants should stand 8 inches apart in 18-inch drills for roots to attain full size.



Danvers and Chantenay Carrots

CELERY

To grow early Celery, sow the seed late in March in a hotbed or box and for later crops, in the open ground, as soon as the weather becomes warm, cover lightly, or better still, roll or press it in. Shade the young plants for a week or ten days, and do not let the soil dry out. The tops may be shorn off once or twice before planting, so as to insure "stocky" plants, which will suffer less on being transplanted. When from four to six inches high, transplant into broad, shallow trenches, or on the level ground, setting the dwarf sorts into rows three feet apart, and the tall varieties four feet apart and six inches apart in the rows. The soil should be light, highly manured, partially shaded and moist, or near water, as the plant must be freely watered in dry weather but it should not be put directly on them. Earthing up checks growth and should not begin until quite well grown, then earth up gradually, keeping the leaf stocks close together, so that the soil may not fall into the center of the plant, but never earth up in wet weather, nor when dew is on them. That intended for winter and spring use needs little banking; when stored for winter it will naturally bleach beautifully white.

One Ounce Will Produce About 5,000 Plants.

Golden Self-Blanching. The best celery in cultivation and the most profitable for market and family use. The handsome appearance and straight strong stalks of this celery are well brought out in the illustration. The heart is large, solid, golden yellow in color, and of delicious flavor. It will turn to maturity to a yellowish white without banking, but like all other celeries is improved by having some soil brought up to the stalks.

White Plume. The peculiarity of this leading variety is that the inner leaves and heart are naturally white, so that by closing the stalks, either by tying or by drawing the soil close about the plant and pressing it together with the hands, the blanching is completed. It is the earliest Celery in cultivation, but will not keep longer than the holiday season.

Evans' Triumph. Not only a splendid keeper, but the very large solid stalks are of the finest texture and quality, crisp, brittle, tender and really nut-like flavor, and has a stronger celery taste than any other variety.

Giant Golden Heart. Large size, beautiful color, crisp and deliciously flavored. One of the best celeries for market, and for home use.

Giant Pascal. Broad, thick, solid, cream-colored stalks of handsome appearance which are entirely stringless, crisp and tender. For January and February use is undoubtedly unexcelled. It is a good shipping variety, free from rust or rot.

Winter Queen. Makes broad and solid white stalks. Close, compact grower.

Celeriac, Turnip Rooted Celery

Sow early in spring. Transplant in May into rich, mellow soil in rows eighteen inches apart and six inches in the row. Grown mostly for its bulbous root.

Large Smooth Prague. One of the best. Roots smooth and almost round. An excellent keeper.

CHINESE, or CELERY CABBAGE—See Cabbage



Celery—Golden Self-Blanching

CHICORY

Large-Rooted, or Coffee. The roots, when dried, roasted, and ground, are largely used as an adulterant or substitute for coffee. The young leaves are excellent when used as a salad. Cultivate same as carrots.

Witloof or French Endive. Seed should be sown in the open ground not later than May, in drills 12 to 18 inches apart, thinning plants so they will stand about 4 inches apart. The plant forms long, parsnip-shaped roots, which should be lifted in the fall, and after cutting off the leaves store in soil in a cool place until wanted for winter forcing.

CORNSALAD, or FETTICUS

One ounce will sow about 18 square feet.

Broad-Leaved (Large-Seeded). A delicious salad, used during the winter and spring months as a substitute for lettuce, and also cooked and used like spinach.

CRESS, or PEPPERGRASS

Sow early in the spring, rather thickly, in shallow drills, one foot apart, in the open ground. **Double Curled.** For salads and garnishing. Leaves are pungent.

CORN

SWEET OR TABLE VARIETIES

A rich, warm, alluvial soil is the best, but excellent sweet corn can be raised on any good, ordinary soil, if it is deeply and thoroughly worked before planting. In the north sweet corn may be planted as early as can be done without risking great loss from frosts or from rotting of the seed in the soil, but with the main crop varieties especially, it is well to wait until the ground has become warm as the sweeter varieties are more sensitive to cold and wet than field corn or varieties of inferior quality.

If planted in rows, make the rows three to four feet apart, according to the vigor of growth of the variety, and place the seed twelve to sixteen inches apart in the row, covering one inch deep with fine soil firmly pressed down.

If planted in hills, make the hills for the early varieties three feet apart each way and plant four to six kernels to the hill. For the later sorts the hills should be three and one-half to four feet apart each way. Hoe frequently and when six inches high thin so to leave three or four plants in the hill. Give frequent and thorough but shallow cultivation until the tassels appear.

For a succession, continue planting every two weeks until the middle of July.

One quart of seed corn plants 200 to 300 hills; one peck will sow an acre in hills.

Golden Bantam. We place this at the head of our list, as we consider it the ideal Corn for the home garden. For sweetness and richness of flavor it has no equal. It is a hardy, early maturing variety of very dwarf growth and can, therefore, be planted closer than other sorts and through a longer range of season. The cob is small, but fills out nicely with large, deep, cream-colored kernels, which turn to yellow when entirely ripe. Our seed is northern grown, which assures the highest standard of vitality and permits of very early planting. No family garden should be without a plot of this excellent corn.

Mammoth White Cory. We consider this one of the best extra early varieties for the market and home garden. The ears are very large for so early a variety. The stalks are about four feet high, each generally bearing two large, finely shaped ears which become fit for use as early as those of any variety. They are twelve rowed, six to seven inches long, very symmetrical and handsome, seldom with any opening between the rows at the base. The grain is large, broad, very white and of remarkably good quality for such an early sort.

Early Minnesota. This deservedly popular variety is one of the best second early sorts for the market and the home garden. The stalks are about six feet high bearing one or two ears well covered with husks. The ears are about eight inches long, eight rowed; kernels very broad, white, sweet and tender, not shrinking much in drying. By careful selection we have developed a stock of this standard variety which is remarkably uniform and in which all the good qualities that have made this sort so desirable are intensified.

Country Gentleman. One of the best known of the midseason varieties. Is the old shoepeg type of kernel pure white, very sweet and tender. It is a good yielder and remains ready for use longer than any other sort. Extensively used for canning.

Early Evergreen. Possessing all the merits of the Stowell's and maturing about ten days earlier. It is a splendid Corn for either the gardener or canner.

Kendel's Early Giant. Remarkably large in ear for a second early sort and extensively grown in some localities for the market. The stalks are about five and one-half feet high. The ears are about eight to nine inches long, twelve rowed. The grain is white, rather broad and shallow, and the quality very good.

Early Mayflower. A selection from Mammoth White Cory; has a white cob, the ear and kernels are larger and ten days earlier than that variety. Very popular as a large, early, sweet corn.

Black Mexican. Well known and a favorite in a great many home gardens, the kernels having a decidedly bluish tinge when ready to eat, later turning to black. It is one of the sweetest varieties in cultivation.



Stowell's Evergreen

Stowell's Evergreen. The most popular late Sweet Corn. More extensively planted than any other sort, being the general favorite with market gardeners and canners for late use. If planted at the same time with earliest kinds, it will keep the table supplied until October. Ears are of good size, grain deep, tender and sugary, remaining a long time in condition for cooking.

POP CORN

A Profitable Crop. Boys and girls can easily dispose of the product to the grocerman.

CUCUMBER

This is one of the vegetables that can be grown to perfection by any one who can control a few square yards of reasonably good soil that is fully exposed to the sun. Every family should be supplied from its own garden, since the fruit is so much better when gathered fresh from the vines as desired for use than it is in the more or less wilted condition in which it is found on the market.

In order to obtain the largest yield of cucumbers the soil should be well enriched with well-rotted manure, but an abundance of good fruit can be raised on any rich garden soil. Plant the seed not over an inch deep in hills four to six feet apart each way, dropping ten to twelve in a hill. After the plants begin to crowd and danger from the striped beetle is pretty well over, thin to three plants to the hill. Give frequent but shallow cultivation until the plants make runners so long that this is impracticable.

The striped cucumber beetle is often very destructive to young plants. These beetles, when not very numerous, are usually kept from doing serious damage by dusting the plants with slug shot. Tobacco dust and plaster may be used with impunity. Lime and ashes are more effective but will injure the plants if used too freely. We spray our fields, at intervals of ten days through the season, with Bordeaux mixture to which has been added Arsenate of Lead, which is a poison for leaf-eating insects and a preventive of blight. The best protection against injury is a vigorous and rapid growth of the young plants.

Pick the fruit as soon as it is large enough and before it begins to ripen, as the vines will cease setting fruit as soon as any seed begins to mature. In gathering for pickles, cut the stem instead of pulling the fruit off and be careful not to mar the fruit in any way, for if the skin be broken the pickles will not keep so well.

One ounce will plant about 100 hills; 1½ lb. to 3 lbs. to an acre.

Davis Perfect. A splendid cucumber for the home garden and for the truck farmer. Possesses all the merits of the best slicing varieties; wonderfully uniform in shape and exceedingly productive. Their handsome shape and fine dark green color commands the highest price on the market.

Evergreen White Spine. One of the best sorts for table use. Vines are vigorous, fruiting early and abundantly; fruit uniformly straight and handsome, dark green, with a few white spines; flesh tender and of excellent flavor.

Improved Long Green. Not so abundant a bearer as the preceding sorts, though recommended to all who put up their own pickles. Fruit long and slim, not surpassed in quality by any variety.

Early Cluster. Vine vigorous, producing the bulk of the crop near the root and in clusters. Fruit short, with uniformly thick end, dark green, but paler at blossom end.

Early Frame, or Short Green. A desirable variety either for pickling or slicing. Fruit bright green, straight, round at each end.

Chicago Pickling. Originating in Chicago, it is now known the country over as one of the most valuable of the pickling varieties. Of robust growth, it is a reliable and heavy cropper. Fruit is a fine dark green color. In shape, tapering to each end and very uniform.



Davis Perfect Cucumber

Egg Plant

Sow in hotbed early in spring; transplant 2 feet apart each way after weather becomes settled and warm. If no hotbed is at hand, plants may be started in pots or boxes in the house. The potato beetle is very fond of the plants. Arsenate of Lead, also Slug Shot, applied same as to potatoes, will keep them in check. One ounce per 2,000 plants.

New York Improved Purple.

This variety is a general favorite both for market and private use. Fruits large, oval; color a splendid dark purple. Plants usually ripen four to eight large fruits.

Black Beauty. Spineless and

rich purplish-black skin; very attractive and of best quality. The plants are remarkably healthy in their growth, and produce an abundance of large fruit.



New York Improved Egg Plant

ENDIVE

For the first crop, sow in May, and for succession, in June and July. When the plants are two or three inches high, transplant them into light soil, one foot apart. When the leaves are eight to ten inches long, tie the tops together to blanch the heart and remove the bitter taste. May be lifted late in fall with ball of earth attached and place close together in a frame or cellar. It makes a delicious salad for winter use. One ounce will sow 150 feet of drill.

Green Moss Curled. A unique variety, somewhat resembling a tuft of moss. Very crisp, tender and of good flavor. Being less hardy than other sorts, it requires protection from cold.

Broad-Leaved Batavian. Has slightly wrinkled thick leaves. It is usually grown for use in soups and stews.

FRENCH ENDIVE—See Chicory

HERB SEEDS

The cultivation of herbs is very simple, and but little care is needed beyond keeping down the weeds. Sow in April or May, in drills 12 to 15 inches apart, and thin out the young plants where they stand too thickly. Gather when just coming into bloom, tie in small bunches and dry in the shade.

Basil, Sweet. The seeds and stems are used for flavoring.

Dill. Seeds used for seasoning; also leaves used very extensively for flavoring.

Marjoram, Sweet. An aromatic herb for seasoning. The young tender tops and leaves are used green in summer to flavor broths, dressings, etc., and are also dried for winter use. Usually grown as an annual as it is not hardy enough to endure the winter of the northern states. Plant erect but branching with small oval grayish green leaves and small purplish or whitish flowers.

Sage. One of the most extensively used herbs for seasoning. It is also believed to possess medicinal properties. Hardy perennial, about fifteen to eighteen inches high. Plant very branching; flowers usually blue, sometimes pink or white; leaves grayish green, oval, wrinkled. Cut the leaves and tender shoots just as the plant is coming into flower and dry quickly in the shade. The plants will survive the winter and may be divided. If this is done they will give a second crop superior in quality.

Summer Savory. A well-known annual herb. Excellent for seasoning.

Thyme. An aromatic perennial herb, eight to ten inches high, used principally for seasoning. Plant very branching with wiry foliage and small lilac flowers. Sometimes the leaves are used to make a tea for the purpose of relieving nervous headache. Sow as early as the ground will permit.

KALE, OR BORECOLE

The Kales are more hardy than Cabbage, and make excellent greens for winter and spring use, and are improved by frost. Sow from May to June, and cultivate the same as Cabbage. For early spring use, sow in September, and protect during the winter.

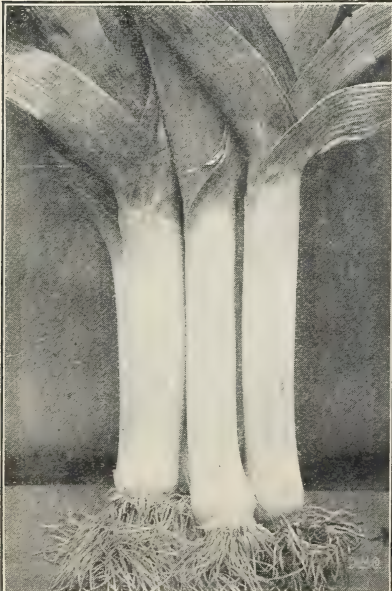
One ounce to 300 ft. of a row—4 pounds to an acre.

Dwarf German. A dwarf variety, but spreading out under good cultivation to 2 feet in diameter; the leaves are very beautifully curled, and of a bright green.

Green Curled Scotch. About two feet high.



Early White Vienna Kohlrabi



Monstrous Carentan Leek

KOHLRABI

(Turnip-Rooted Cabbage)

For early use, sow in hotbed, afterwards setting plants 8 inches apart in rows. For later use, sow seed in drills and thin out. One ounce of seed will sow a drill of about 200 feet.

Early White Vienna. Early, small, white bulb. Best for table use.

Early Purple Vienna. A little later than the white; color purple.

LEEK

Sow early in April, in drills one foot apart, one inch deep. When the plants are six to eight inches high, transplant in a deep, rich soil in rows twelve inches apart and six inches in the rows, as deep as possible, so that the neck may be covered and blanched. Draw the earth to them as they grow. The seed may also be sown in September, and the young plants transplanted in the spring. One ounce of seed to 150 feet of drill.

Monstrous Carentan. The largest variety, often 3 inches in diameter, and becoming very white and tender. A very hardy and desirable sort.

London Flag. This is the sort chiefly grown by market gardeners. It is of excellent quality.

LETTUCE

There are two distinct classes of Lettuce. One forms heads like cabbage, the other produces a compact bunch of loose leaves; the loose leaved varieties are the easiest to grow. All of them are of good flavor, crisp and tender. Sow the seed $\frac{1}{4}$ to $\frac{1}{2}$ -inch deep in hot beds or flats during February or early March, prick the young Seedlings out in flats or cold frame several inches apart each way, and, as soon as a nice rich, warm spot can be prepared in open ground in spring, transplant the well-hardened plants in rows a foot apart, allowing 8 to 12 inches space between the plants in the row. For succession sow seed thinly in open ground, and thin the plants to 5 or more inches apart; all varieties should be transplanted for the best results. Sow for succession every few weeks until the fall. Some varieties do well in hotbeds or a cool forcing house during winter.

One ounce of seed will produce about 2,000 plants.

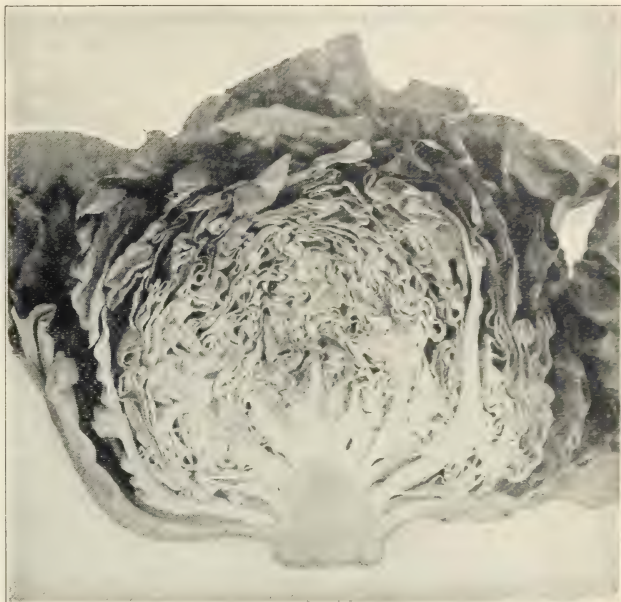
Curled or Loose Head Varieties

Grand Rapids. Of highest merit as a forcing variety. Owing to its peculiar upright habit of growth, it economizes in bench room and in a short time produces a mass of beautifully frilled leaves of quality for the table or for shipping. It is also an attractive and desirable variety for growing outside in the home garden. We have an excellent strain of seed of this variety which is proving very satisfactory to our customers.

Black-Seeded Simpson. The best known and probably the most largely planted of any variety. Early, hardy, dependable, it is a favorite with market gardeners, both for planting outside or for growing under glass. The leaves are large, light green, quite crimped throughout but especially frilled at the border. They grow compactly without forming a distinct head, are of firm texture and of good quality either for family use or for shipping. Can be planted later than most sorts, as its vigorous growth enables it to withstand the summer heat.

Early Curled Simpson. Standard loose-leaf variety, forming a dense growth but not heading. The leaves the light green, curled and good quality. A satisfactory sort for the home garden.

Prizehead. Well known, loose-heading lettuce, quite distinct from most other sorts on account of its peculiar color, light green shading to bright reddish brown. The leaves are somewhat crimped and grow more so at the border. In quality, tender and sweet.



Big Boston Lettuce

Cabbage or Heading Varieties

Big Boston. A splendid Lettuce for market gardeners, either north or south. Leaves are light green, nearly smooth except the outside edges, which are somewhat ruffled. Forms large and very compact heads that are especially suitable for shipping, for which purpose it is planted very large in the south for the northern market.

Improved Hanson. This is one of the very best for the home garden. Forms solid heads with the inner leaves nicely blanched. The outer ones are light green, handsomely frilled at the edges. In quality it has no superior, the heads being of delicate, crisp texture, tender and sweet.

Iceberg. Somewhat similar to Hanson, but smaller and of slightly darker color. A good variety for either the market gardener or for family use.

May King. Can be planted very early in the spring. Matures more quickly than any other of its class, forming large heads, the inner leaves blanching yellow, the outer ones somewhat tinged with brown.

Trianon Cos or Romaine Lettuce. It differs from ordinary Lettuce by the shape of the leaves, which are elongated, spoon-shaped and very crisp. It is grown in the same manner as Cabbage Lettuce. When plants are of a sufficient size the leaves should be drawn together and tied, in order to blanch the inner ones.



Grand Rapids Lettuce

MUSK MELON

After danger of frost is past, the ground being warm and in good condition, plant in rich soil, preferably sandy loam, in hills about four to six feet apart according to the vigor of the variety. Put ten or twelve seeds in a hill, covering with about an inch of fine soil firmly pressed down. When the plants begin to crowd and the striped beetles are pretty well gone thin to four of the most vigorous plants in a hill. Give frequent but shallow cultivation, until the plants make runners so long that this is impracticable. Rich earth for the young plants is far better than manure, but if the latter must be used, see that it is well rotted and thoroughly mixed with the soil.

The quality of all varieties of Muskmelons is largely dependent upon conditions of growth and ripening. Unhealthy vines or unfavorable weather produces fruit of comparatively poor flavor.

The plants are liable to attack from the striped beetles which are so numerous in some cases as to destroy them. The beetles may be kept off by frequent dusting with slug shot, air-slaked lime, soot or sifted ashes diluted with fine road earth. Care should be taken not to use too much of any of the above materials or the vines will be injured. Should even the diluted material prove injurious to the vine, use road earth only, as frequent dusting with this alone will often prove effective especially if a wind is blowing. After the plants have four to six leaves it is considered a safeguard against blight to spray with Bordeaux Mixture at intervals of about ten days, adding arsenate or lead for the eating insects.

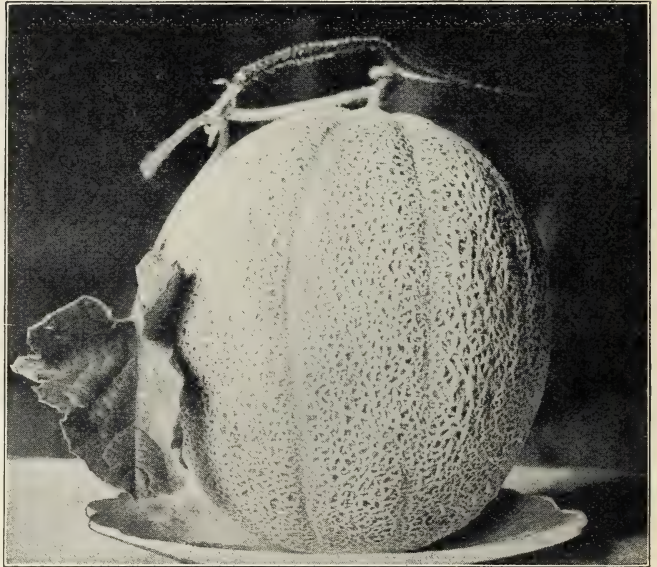
One ounce of seed for 60 hills; 2 to 3 pounds per acre in hills.

GREEN-FLESHED VARIETIES

Rocky Ford. Nearly every leading hotel and restaurant in America uses large quantities of this famous melon, which is just the right size to serve in halves. The ripe melons are beautifully netted and ribbed. Solid green flesh, sweet and melting. We offer a splendid strain of seed of this fine melon, grown for us at Rocky Ford, Colo., saved from specimens that were especially selected for seed purposes.

Extra Early Hackensack. An early strain of the well-known large Hackensack. Very popular with the market gardeners as it is the first of the large melons to be ready for market. The fruit is of good size, round and heavily netted. Flesh green, very sweet and good flavor.

Improved Green Nutmeg. A large melon, nearly round, deeply ribbed, flesh thick, light green, delicious flavor.



Rocky Ford Muskmelon



Emerald Gem Muskmelon

ORANGE OR SALMON-FLESHED VARIETIES

Tip Top. Hardy, vigorous-growing melon of Tip Top quality, commendable to either the truck grower or private gardener. Medium size, yellow flesh, juicy and sweet.

Osage. The best known and most in demand of the red-flesh varieties. Medium size, oval in shape; skin very dark green and slightly netted. The flesh is a rich salmon color, very thick and sweet and of delicious flavor.

Emerald Gem. Well-known variety of recognized merit. Of medium size, nearly round. Smooth, dark-green skin, salmon-colored flesh. One of the best for home use.

Paul Rose. This melon is a cross between the Osage and Netted Gem, and about ten days earlier than the former. Of a size very suitable for shipping in baskets, it is becoming very popular in the market, especially where its superior qualities are known. The thick, red flesh is exceptionally sweet.

WATER MELON

To raise good Watermelons, it is essential that the plants have a good start, and it is important to prepare hills about 6 feet apart, by thoroughly working into the soil an abundance of well rotted manure—hen manure, sheep manure, or other forms rich in nitrogen, being most desirable. Over this highly manured soil put 4 to 6 inches of fresh earth and plant the seeds on this, covering them about an inch deep. It is important that the seed should not be planted before the ground becomes warm and dry, as the young plants are very sensitive to cold and wet. Put 5 or 7 seeds in a hill. When the plants have formed the first pair of rough leaves, they should be thinned so as to leave three of the strongest and best to each hill. Frequent watering of the plants with liquid manure will hasten the growth, thus diminishing the danger from insect pests. If the striped beetle appears use tobacco dust or Slug Shot freely. The best protection against blight and insect pests is to maintain a vigorous and continuous growth. It is desirable to change the location as often as practicable. Do not plant on land where Watermelons were grown before, as the vines exhaust elements in the soil which makes succeeding crops defective. Watermelons are less subject to "bug" depredations and disease attacks than Muskmelons. At the same time they are more easily hurt by strong spray mixtures, and caution in the use of such mixtures is advisable.

One ounce for 30 hills—4 to 5 pounds for an acre.

Kleckley Sweets, or Monte Cristo. While the skin is perhaps too thin to admit of the melons being shipped great distances, it is most desirable to plant for home use or local markets. The melons themselves are very large, oblong in form, with dark green skin, thin rind, which is very brittle. Flesh is bright scarlet, with solid heart, deliciously crisp.

Cole's Early. For the northern states this is desirable on account of its extreme earliness and vigorous growth. This is the easiest to grow of all the Watermelons. If you have failed with other sorts, you may succeed with Cole's Early. It is the best variety for the family garden, primarily so on account of its extreme earliness, but mainly because it has all the qualities necessary to a perfect variety for this purpose. Its remarkably early character entirely removes the most common hindrance to its cultivation. In places where Watermelons never grew before, Cole's Early is now supplying the tables of those who grow it, just as bountifully and with just as good melons as in the sunny regions of the South. It is good in every respect, producing a liberal crop of Melons, not large, but in abundance and of delicious quality. The deep red, fine grained flesh ripens from heart to rind, while its rich color and luscious flavor are tempting to the most exacting and critical taste.



Kleckley Sweets, or Monte Cristo

Phinney's Early. Hardy, robust growing variety, oblong shape. Rind light and dark green mottled. Flesh pink, of very good quality.

Sweetheart. A light green melon, slightly mottled, nearly round in shape. Very thin rind, bright red flesh, fine grained and very sweet. Ripens down close to the rind.

Peerless, or Ice Cream. A hardy and productive melon, oval shape, bright green mottled. Flesh light pink, firm and sweet.

Tom Watson. One of the best of the large sorts. Oblong in shape, with a thin but tough rind. Dark green, somewhat mottled. The flesh is solid and sweet, of a very handsome scarlet throughout. The many merits of this melon recommend it to both the shipper and the home gardener.

Cuban Queen. Oval-shaped. Very productive. Rind light and dark green mottled. Flesh scarlet.

Citron. The fruits are medium sized, uniformly round and are used exclusively for preserves or pickles. The color is dark green, distinctly striped and marbled with light green. The flesh is white and solid but is not at all suitable for eating raw. The fruits mature late in the fall and in this condition can be kept for a long time.

MUSTARD

Mustard is not only used as a condiment but the green leaves are used as a salad or cut and boiled like spinach. Sow as early in the spring as the ground will permit, in drills about eighteen inches apart, covering one-half inch deep. For succession, sow every few weeks till autumn. Water freely. In the south the seed may be sown in autumn and the plants used early in the spring as a salad and for greens.

White English. Excellent for salads or garnishing.

Southern Giant Curled. Leaves much crumpled at the edges, and twice the size of the ordinary White Mustard.

Giant Smooth Leaf. Large, fleshy leaves of mild flavor. Plant 12 to 18 inches across. A favorite variety in the South.

OKRA or GUMBO

The young seed pods are used in soups, stews, catsups, etc. Highly esteemed in the South. After danger of frost is past, the ground being warm and in good condition, plant in rows about two and one-half feet apart, covering with about an inch of fine soil firmly pressed down. When about three inches high, thin to about one foot apart in the row.

White Velvet. Bears round, white, smooth pods of extra large size, in great abundance.

ONION

We prefer a soft, dark sandy loam, not too fine. This is much better if it has been cultivated with hoed crops, kept clean from weeds and well manured for two years previous, because if a sufficient quantity of manure to raise an ordinary soil to a proper degree of fertility is applied at once, it is likely to make the onions soft. The same result will follow if we sow on rank muddy ground or on that which is too wet and it is impossible to raise either a large or profitable crop on stiff clay, very light sand or gravel.

Sow the seed, as soon as the ground can be made ready, about one-half inch deep. The quantity needed will vary with the soil, the seed used and the kind of onions desired. Thin seeding gives much larger onions than thick seeding. Four or five pounds per acre is the usual quantity needed to grow onions.

As soon as the young plants can be seen in the rows give a shallow working either with rake or some other tool that pulverizes well the whole top soil. Many onion growers consider about one inch apart as a perfect stand, thin out to 3 or 4 inches apart if large onions are wanted. Work the crop again in a few days with a hoe or tool that cuts the ground over, this time as closely as is possible to the row without injury to the young plants; follow as quickly as possible with a thorough hand weeding. The ground should be cultivated once a week if possible and any remaining weeds pulled out by hand every two weeks. For best results these operations should be continued until the crop occupies the ground.

To raise onion sets from seed, use good ground prepared as for large onions and sow the seed very thick in broad drills, using forty to sixty pounds per acre. If the seed is sown thin, the bulbs will not only be too large for sets but will not be of the right shape, and if sown thick on poor land they will be necky or bottle shaped. Onion seed sown for sets may be planted somewhat later than if a crop of large bulbs is desired.

It will not do to store onions in large piles or masses, particularly in warm weather, or if they are the least moist, but if perfectly dry when gathered and stored in crates, they can be kept in fine condition till spring. The best way is to keep them dry, giving bottom ventilation if possible, and at a uniform temperature of about 32 degrees to 34 degrees Fahr.

One ounce for 100 feet of drill; 4 to 5 lbs. for an acre.

Yellow Globe Danvers. A well-known standard onion for market purposes and home use. A heavy cropper and good keeper. Skin silvery yellow; flesh white, comparatively mild and well flavored.

Yellow Flat Danvers. This differs from Yellow Globe Danvers in that the bulb is flatter. Being a heavy yielder, it is largely cultivated both for market and home use. It is also grown to a considerable extent for sets.

Southport White Globe. One of the most beautiful globular onions. Of large size, fine quality, and salable anywhere. Market gardeners find it an excellent sort of plant for bunching.



Flat Danvers

Select Red Globe. Handsome both as to shape and color. A selection of the Southport strain of fine quality for the home garden. A splendid shipper. Growers for the southern market should raise this variety. It is a good yielder and matures early. Color a rich dark red; thin skin.

Prizetaker. Very large, mild-flavored onion, sometimes called "Mammoth Spanish." Attains its largest size when started in hotbeds and transplanted. It is quite globular in form with a light yellow skin, and in quality almost equal to the imported onions. A favorite variety to grow for exhibition purposes.

Red Wethersfield. Most popular of the red flat varieties. Grows to a large size and is very productive. Being a good keeper, it is grown largely for shipping and also for onion sets. Color, very dark red.

White Portugal. An early, white, flat variety. A favorite pickling sort. Also forms a fair-sized onion of good keeping quality.

ONION SETS

Onion Sets. In private gardens the cultivation of the family supply of Onions from sets has much to recommend it. The amount of labor involved is less, the crop is surer to grow, and is ready for use weeks in advance of that grown from seed. On a small scale where the cost of sets is not a serious item we urge customers to use them. In fact, the ideal way is to use both sets and seed—the sets for use in the spring and summer, and seed to grow bulbs for winter keeping. Onion Sets should be planted out as early in the spring as the ground is dry enough to work. Plant them in rows 12 inches apart with sets 2 inches apart in the row. Prices on large quantities of onion sets are subject to market changes. Write us when you are ready to buy, stating quantity and kinds wanted. **White, Yellow and Red Bottom Sets.**



Yellow Globe Danvers Onion



Champion Moss Curled Parsley

PARSNIP

Sow seed about half an inch deep early in spring, in deep, rich soil. The seed is slow to germinate, and will vegetate sooner by steeping 6 to 12 hours in a liquid manure, diluted with water, and mixed with sand before sowing. When well up thin out to 5 or 6 inches apart in the rows. Unlike Carrots, they are improved by frost, and it is usual to take up in fall a certain quantity for winter use, leaving the rest in the ground until spring, to be dug as required.

One ounce for 15 feet of drill—5 to 6 pounds for an acre.

Hollow Crown. Standard sort, long, sweet and very productive. One of the best for general cultivation.

Magnum Bonum. Of decidedly handsome appearance, smooth, heavy roots, which are broad at the shoulder, fine grained, and of superior quality.

PARSLEY

Soak the seeds a few hours in lukewarm water and sow about half an inch deep early in spring, in drills one foot apart. Thin out the plants to four inches.

To improve the appearance of the crop, trim the plants with a sickle two or three times during its growing season and at the approach of winter transplant to cold frames or a sunny window. Parsley may be mulched with coarse litter and wintered for spring use till the new crop begins.

One oz. will sow about 150 ft. of drill.

Champion Moss Curled. Extra large, dark, green, tender, crimped and curled. We recommend this variety for either greenhouse or outdoor planting.

Plain or Single. Plain leaves of excellent flavor. They are longer than those of the curled Parslies.

Hamburg. The edible portion is the fleshy root. It is highly esteemed for flavoring soups, stews, etc.



Hollow Crown

PEPPER

Peppers are most largely used for seasoning meat and vegetable dishes as well as for salads and mangoes. They are used also for making chow chow and chili sauce.

Peppers are more tender than most vegetables. The seed should be shown in a hotbed, cold-frame, or if no other convenience, a box in the window, and transplanted warm, mellow soil, fertilized, should be used.

Seed may also be sown about middle of spring in open seed bed, the soil being light and warm. When three inches high transplant in rows about two and one-half feet apart and two feet apart in the row. Cultivate and keep free from weeds. Sheep manure, or any other good fertilizer hoed into the surface soil when the plants are about six inches high, will undoubtedly increase the product.

One ounce of seed for 1,500 plants.

Chinese Giant. A very large, mild-flavored pepper, of a bright scarlet color when ripe. Excellent for eating and stuffing. A good variety for the market gardener to grow.

Large Bell, or Bull Nose. A standard variety, of vigorous growth and productive. Fruit of good size, dark green turning to scarlet at maturity; mild, pleasant flavor.

Ruby King. A pepper of large size, well known and much esteemed by truck growers. When ripe, its color is a beautiful ruby red, very attractive and of good quality.

Sweet Mountain. Similar to Bell; very popular for stuffed pickles.

Long Red Cayenne. Slender fruit; green turning to scarlet. Very pungent and hot.



Chinese Giant Pepper

GARDEN PEAS

Peas succeed best in light, dry, loamy soil. Early and Dwarf sorts require richer soil than the late varieties. If manure is used, let it be old and well rotted, or there will be a rank growth of vines with few pods. Sow the early, smooth, round sorts as early in spring as the ground can be worked. Seeds of wrinkled varieties are more liable to rot if the ground is cold, and must be planted later. From the first sowing, sow every two weeks until June for a succession. Discontinue then until August, when a planting of extra early sorts will often produce a good crop. Sow the seed in drills $2\frac{1}{2}$ to 3 feet apart for dwarf sorts and four for tall sorts, or in double drills six or eight inches apart, one inch apart in the drill, and not less than four inches deep, since deep planting prevents mildew and prolongs the season. Cultivate well, and draw the earth twice to the vines during growth. Stake the tall varieties when they begin to vine. Pick the pods as soon as fit, and allow none to ripen on the vines, as they will then cease bearing. Most Peas do best when supported with brush or wire. Figures preceding description of varieties indicate height.

2 lbs. will plant about 100 feet of drill.
60 lbs. to 100 lbs. for an acre.

FIRST EARLY AND EARLY VARIETIES

Smooth Varieties.

Barnard's Leader. 3 ft. A round, smooth pea, in size similar to the First and Best, but more uniform and more prolific. Matures very early. Make first planting as early in the spring as the ground will permit and cover well.

First and Best. 2 ft. A well-known variety; very early and hardy. Planted quite extensively by southern truckers.



Gradus, or Prosperity



Laxtonian Peas

Alaska. 2 ft. This is the pea used extensively by canners and truckers for the early market. We have a splendid strain of this variety. Much labor has been expended on it with a view of obtaining earliness, productiveness, and uniformity of growth. Our stock now is such that we can recommend it to the most critical buyer.

Dwarf and Half Dwarf Wrinkled Varieties

American Wonder. 12 inches. The standard variety of this country for a great many years. Very dwarf; matures early and is vigorous and productive, so well known that it needs but little description here.

Premium Gem. 18 inches. A well-known and very satisfactory variety for the home garden. A little taller and later than the American Wonder. Pods of good size; peas very sweet.

Nott's Excelsior. 15 inches. The pods average fully one-third larger than those of American Wonder, and while Nott's Excelsior may not always be quite so early by a few days, are all ready for picking at one time. Each pod contains 6 to 8 large peas.

Gradus, or Prosperity. 20 to 30 inches. A grand, early large podded wrinkled pea. Has become one of the favorites for the home garden or truck growers in every section of the country. Pods are from 4 to $4\frac{1}{2}$ inches in length and the peas are unusually large, very sweet and of delicious flavor.

Laxtonian. 18 inches. The largest-podded of the dwarf wrinkled peas. A splendid new variety, becoming a favorite with those who grow for the market or for the home garden. Might be called a dwarf Gradus. The peas have the same delicate flavor of that variety. Laxtonian matures earlier and is very prolific. If you have not grown this pea, try it this season.

Peas—Continued Next Page

Garden Peas — Continued

Cultural Directions Are Given on Preceding Page

Dwarf and Half Dwarf Wrinkled Varieties

Dwarf Telephone. 18 in. This grand pea is rapidly gaining favor among gardeners of all classes. In habit it is dwarf and stocky. Bears close planting and requires no sticks or supports. The pods frequently measure 5 inches in length, and are broad, straight, and remarkably well filled. A splendid mid-season variety.

Little Marvel. 18 inches. The ideal pea for the home garden, early and enormously productive. Pods borne in pairs; they are about 2½ inches in length, well filled with large peas of delicious flavor. This variety is taking the place of some of the older and better-known dwarf peas.

Thomas Laxton. 2½ to 3 ft. Resembles Gradus in many respects. A little earlier and more hardy. Pods not quite as large, but more productive. Considered by our truck growers as one of the very best for the early market. For best results give a support of some kind.

Improved Stratagem. 2 ft. A splendid late pea. Foliage and pods dark green. Pods about 4 inches in length, well filled with large peas of best quality.

Everbearing. 24 inches. A large-podded, late variety. Good for summer and autumn use.

Tall Wrinkled Varieties

Pea Vines of tall habit of growth require support of some kind. Poultry netting is admirable for this purpose. Sow the seeds in double rows eight inches apart and stretch the wire support between the rows. The ends of the support should be fastened to posts at each end.

Alderman. 4 ft. A grand second early pea. One of the very best in this class for the market gardener. It is a vigorous growing productive variety, bearing pods of immense size. 5 inches in length. Very handsome dark green color. The peas are large, and in quality sweet and tender.

Telephone. 4 ft. An old, well-known variety. One of the best of the late maturing sorts. Pods are large, containing 8 to 10 peas of good quality and flavor.

Champion of England. 4 to 5 ft. A splendid variety and a favorite late pea for the home garden. Pods are large, well filled with peas of good quality.

White Marrowfat. 4 ft. A very hard, smooth pea. A strong growing variety, with thick, large pods about 3 inches in length. Grown as field crop quite extensively.

Sugar or Edible-Podded Peas. When cooked, they are equal to the best snap beans. Being hardy, can be planted early in spring. Of strong, upright habit, growing about 12 to 15 inches high. The pods should be gathered while young and boiled whole.

PUMPKIN

The finer varieties of pumpkins are used for pies and the coarser ones for stock feeding. The seeds may be planted with corn or potatoes, but may prove more profitable raised in fields by themselves. As this crop requires as much time as corn to mature, the planting cannot be too long delayed. Sow early in May in hills eight feet apart. For monster pumpkins for exhibition purposes plant Mammoth Tours in very rich ground and feed liberally with liquid manure.

One ounce will plant 30 to 50 hills.

Small Sugar. One of the best for the home garden. An excellent variety for pies. Nearly round, 10 to 12 inches in diameter; rich orange color. Flesh thick, fine grained, and very sweet.

Winter Luxury. A fine cooking sort, 10 to 12 inches in diameter. Golden yellow, netted somewhat like a muskmelon. One of the very best to store for winter use.

Japanese Pie. A Crookneck Sort. Seeds peculiarly sculptured. Ripens early. Flesh salmon-colored, fine-grained, and sweet.

Cushaw, Green Striped. Large crookneck pumpkin. Cream-colored, striped with green. Very popular in the south.

Mammoth Tours. Grown chiefly for exhibition purposes and for stock feed. It grows to an enormous size, frequently weighing over one hundred pounds. Skin salmon color; flesh yellow. Keeps a long time.

Large Cheese. A large buff-colored variety of distinct shape, used extensively for canning.

Connecticut Field. The best cornfield pumpkin. Grown largely for stock purposes, but is very suitable for table use; an excellent keeper.



Sweet or Sugar Pumpkin

RADISH

Sow early and often, in good, warm, fibrous loam, especially if quite sandy, summer Radishes will make a crop in 4 to 6 weeks from sowing. The soil should be well prepared, and fertilizers may be used freely. Have the rows a foot apart, and sow just seed enough so that they will not require thinning. Any little spot that becomes available during the summer may be utilized for planting Radishes. The short or turnip-rooted sorts are quickest and easiest to grow, and good for forcing also. On greenhouse bench or in frames the rows need not be more than 4 inches apart.

A dressing of nitrate of soda (about one ounce to twelve square feet) will greatly stimulate growth and insure tender, brittle roots. Successional sowings from one week to ten days apart will keep up a supply. After the hot weather of summer begins, it is better to sow the summer and winter varieties as they do not become tough and stringy nor pithy so quickly as the early sorts.

Radishes are subject to root maggots which make them useless for culinary purposes. We know of no certain remedy for this pest. We have found that the best preventive measures are to avoid the use of rank manure and not to sow on ground where radishes, turnips or cabbages were grown the year previous.

One ounce to 100 feet of drill—8 to 10 pounds for an acre.

OLIVE, GLOBE AND TURNIP-SHAPED VARIETIES

Early Scarlet Globe. A round, red, turnip-shaped Radish, with small tops and of very quick growth, deserving general cultivation on account of its rich scarlet-red color, almost crimson and its white, crisp, tender flesh. The roots often grow one inch long by one and one-eighth inches in diameter before becoming pithy. This is a standard variety for early outdoor planting for the home garden and market.

Scarlet Turnip White Tipped. One of the best early Radishes for the home garden and a great favorite in large markets for early planting outdoors. The roots are nearly round, slightly flattened on the underside. The color is very bright, deep rose-carmine scarlet with a distinctly white tip. The flesh is white and of the best quality. The stock we offer is exceptionally attractive in its splendid coloring. The scarlet is unusually deep and affords a distinct contrast with the large clear white tip.



Early Scarlet Globe

French Breakfast. An oblong-shaped radish. Fine for open ground or forcing. Valued for its excellent quality and fine color, which is a beautiful scarlet on the body and white at the extremity. Flesh white, tender and mild.

Early Scarlet Turnip. An old, well-known variety; bright scarlet, solid white flesh.

Early White Turnip. Very much like the scarlet; a trifle earlier in maturing. Skin and flesh pure white.

Sparkler. A splendid radish of the same type as the Scarlet Turnip White Tip, but larger and showing more white, practically the whole lower portion being white and the upper part deep scarlet. This radish is not only very showy, but of the finest quality, and is popular with private gardeners as well as growers for the market.

Crimson Giant. A large globe-shaped variety. Handsome deep scarlet; thin skin, solid white flesh of best quality. Attains a large size without becoming pithy or losing its crispness.

Large White Summer. This is a radish which is quite popular in certain sections. Nearly round in shape. Pure white. Attains a size of 3 inches in diameter without losing any of its good qualities.

RADISH—Radish seed can be planted about as early as any of the vegetables. It is important that Radishes be grown quickly, for if they come on slowly, they will be pithy and strong. Successive plantings may be made every two weeks.



Scarlet Turnip White Tipped

RADISH—Continued

HALF LONG AND LONG VARIETIES

White Icicle. The finest long, white Radish; the young Radishes are ready for use in 25 days, and continue to grow, fully retaining their crisp tenderness and mild flavor until quite large. These Radishes are transparent white, have small tops, allowing close planting, and are very crisp and brittle. A feature greatly in its favor is that it remains in good condition while growing for a long time, thus allowing a continuous pulling from the same planting.

Long Scarlet Short Top. A well-known variety and extensively planted. Roots 6 inches in length, about one-third of which grows above the ground. Color, bright red.

Chartier. One of the very best for outdoor sowing in summer. Roots bright crimson in upper portion, shading to white at the tip. Can be eaten when quite small. Remains solid and crisp.

White Strassburg. A good, late radish, oblong shape. Both skin and flesh are pure white. Roots when fully grown, about 6 inches in length and 2 inches in diameter.

RADISH—Winter Varieties

These grow to large size, have firm hard flesh and can be kept in good condition for use all winter by packing the roots in moist sand or soil in a cool cellar before the ground freezes in the fall. To have them crisp and free from woodiness the seed should not be planted until late in the summer, as if planted too early the roots would be apt to become hard and woody before it is time to put them away in the fall. A good rule to follow is to sow the seed at the same time as you would seed for winter turnips, and where only a small supply is needed the seed could be sown in the same patch with the turnips.

Long Black Spanish. A long, very hardy radish. Skin nearly black; flesh pure white. Very well known and extensively planted.



Radish—Winter Varieties



Icicle Radish

Round Black Spanish. A large, turnip-shaped radish. Skin and flesh same as the long variety. Quality about the same.

Chinese White. A large, white smooth skin radish, cylindrical in shape, 6 to 8 inches long and 2 or 3 inches in diameter. Mildest flavored of the winter sorts.

Chinese Rose. Not quite as large as the white variety and more pungent. Skin bright rose, flesh white. A splendid keeper, and grown largely for the market.

RHUBARB

Good plants are easily grown in any good garden soil. Sow seed thinly in shallow drills a foot apart, thin to 4 to 5 inches. Keep soil loose and free from weeds. The plants are liable to vary considerably. Pick out the strongest and best. In fall or spring following, transplant to the permanent bed, 4 feet apart each way, in deep warm and very rich soil.

One ounce will produce 300 to 500 plants.

Victoria. Leaf stalks tall and large. Sometimes weighing 2 lbs. each. Skin thick and red stained. Pulp quite acid. Productive and profitable for market gardeners.

SALSIFY

Or Vegetable Oyster

Soil and culture should be the same as for parsnips. Make sowings as early as practicable in spring. Salsify is boiled like parsnips or carrots, or is half-boiled and grated, then made into balls which are dipped into batter and fried like oysters.

Mammoth Sandwich Island. A new and improved type producing roots of nearly double the size and weight of the old sort, and in every way preferable. Much valued by market gardeners, as it grows stronger and is less inclined to branch.

SQUASH

Squashes do best in warm and very rich soil. Plant in well manured hills, same as Melons or Cucumbers, the bush varieties 4 feet apart each way. Use seed freely, 5 to 7 seeds to the hill, to provide for losses by insects. When danger of such loss is past, thin to 3 or 4 plants to the hill. To repel the squash vine borer, throw a handful of tobacco dust close around the plants. The large, strong-smelling black squash bug can be kept in check by hand-picking, going over the vines at frequent intervals. For yellow-striped beetle and blight, spray early and repeatedly with Bordeaux Arsenate of Lead Mixture. Winter Squashes may also be grown in corn-fields in same manner as pumpkins.

Summer Varieties

Mammoth White Bush. An early, round, flat squash; color clear white, handsomely scalloped. Called Patty Pan in the South. Largely planted in every section of the country. One of the very best of the early varieties.

Mammoth Yellow Bush. Same as above, except in color, which is a bright yellow. Early and of good quality.

Mammoth Summer Crookneck. A well-known and standard variety. Grows from 18 inches to two feet in length. The shell is hard and warty and of an attractive bright yellow color. The thick flesh is of good quality.

Fall and Winter Varieties

Hubbard. A favorite winter squash. Shell dark green and extremely hard. Flesh rich orange; dry and sweet. Splendid for cooking or pies.

Warted Hubbard. Same as above, except that the shell is rough or warted. This variety is an excellent keeper. Largely grown for the market.

Golden Hubbard. Earlier than Green Hubbard; a little smaller. Color orange red.

Vegetable Marrow. A small mottled green and yellow squash. Flesh white and very tender. This is the famous English variety.

Mammoth Chill. Favorite variety for exhibition purposes. Attains an immense size, weighing sometimes 200 lbs. or more. Excellent for stock. Can also be used for the table, as the flesh is fine-grained and of good flavor.



SPINACH

This is an important crop for the market gardener. It is of easy cultivation. Sow for main crop in September, either broadcast or in drills one foot apart and one inch deep, in rich soil; the stronger the ground, the more delicate and succulent will be the leaves. Protect during the winter with hay or straw. For spring and summer use, sow as soon as the ground can be worked, and every two weeks for succession.

1 oz. for 100 ft. of drill; 10 to 12 lbs. per acre.

Bloomsdale or Savoy Leaved. Of upright growth; leaves curled and crimped, thick and fleshy. Keeps well after cutting. Suitable for fall sowing.

Victoria. Large, very dark green leaves, slightly crimped. Remains in good condition for market for a long time. A newer variety that is becoming very popular with the truckers.

Long Standing. Leaves dark green and thick. Not inclined to run to seed for a long time. Popular with market gardeners.

New Zealand. Yields an abundance of the tenderest Spinach during the hottest months of the year, or in dry arid localities where the ordinary Spinach runs to seed. The seed is sown where the plants are to stand, in May, or earlier in a hotbed and transplanted, and the plants will continue to yield a supply of good leaves of excellent quality during the entire summer, requiring scarcely any attention.

Swiss Chard or Spinach Beet

Also called Sea Kale Beet. The middle of the leaf, or midrib, is cooked and served like asparagus. The other portions of the leaf may be used like spinach. This beet does not make a large root, but is a delicious summer vegetable when cut young and used for "greens."

Swiss Chard
See also
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Warted Hubbard Squash

TOMATO

Tomatoes do best on light, warm, not over-rich soil and success depends largely upon securing a rapid, vigorous and unchecked growth during the early part of the season. Sow in hotbeds or in shallow boxes in the house from six to eight weeks before they can be set out of doors, which is when danger from frost is past; when the plants have four leaves transplant into shallow boxes or cold-frames, setting them four or five inches apart; give plenty of air and endeavor to secure a vigorous but steady and healthy growth, so that at the time of setting in the open ground they will be strong and stocky. Even a slight check while the plants are small will materially diminish their productiveness.

Set out of doors as soon as danger from frost is over, but before doing so harden off the plants by gradually exposing them to the night air by the withdrawal of water until the wood becomes hard and the leaves thick and of a dark green color. Transplant carefully and cultivate well as long as the vines will permit. If to be grown without training, the plants are usually set from three to four feet apart each way according to the vigor of growth of the variety.

To insure best results in respect to early ripening as well as the amount and perfection of fruit, it is advisable to train up and trim the vines, especially if the patch is rather small. When the plants have been properly started and are six to ten inches high they will begin to throw out branches. Select the largest and most vigorous of these and pinch off all others except this one and the main stem. Care must be exercised not to pinch off the fruiting branches which, as they appear, can be distinguished by the buds that are formed very early. In a short time these two remaining branches will become equally vigorous and as ordinary varieties will grow four to six feet high during the season, they should be securely tied at intervals of about ten inches to a long stake, preferably two inches square, which has been securely set in near the root of the vine.

Fruit will set to almost any height desired if all side branches are kept trimmed off at intervals of a week. By such a method of training and trimming the fruits are kept clear from the ground and with free access of sunlight they ripen much earlier; the vitality, otherwise exhausted in superfluous branches and leaves, is utilized in forming fruits of largest size, greatest perfection of shape and best quality.

One ounce of seed will produce about 2,000 plants.

Acme. Ripens early; of medium, uniform size; glossy red with purplish tinge; round, smooth, free from cracks. An excellent tomato for market gardeners' use.

Beauty. This has been a standard variety for many years, and is still the favorite main crop tomato. Medium early, round, very uniform in shape. Skin smooth, crimson with purplish tinge. Flesh solid and of excellent flavor. A splendid tomato for either the home garden or for shipping.

Dwarf Champion. (Tree Tomato). Quite distinct from the other varieties in habit of growth and foliage. Good sort for the home garden as the plants, owing to the peculiar upright growth, take up but little room and yield abundantly. Resembles the Acme in form and color.

Dwarf Stone. A vigorous growing, dwarf, red tomato of recent introduction. Fruit good size, and of excellent quality.

Early Detroit. Is a better yielder and more vigorous than Acme. Not only are more fruits produced, but they average more nearly globe-shaped, are heavier, and are equally as firm, smooth and suitable for shipping. The fruits are of good size throughout the season, which is unusually long for so early a variety.



Earlina Tomato

Earlina. A fine scarlet tomato. Ready for the market several days ahead of any other variety. Ripens uniformly and is a good yielder. We have a special market garden strain of this seed.

John Baer. An extra early scarlet fruited variety of superior merit. The vines are very hardy and exceptionally productive. The fruits are the largest of the extra early sorts and are also most attractive in color. They are nearly round, smooth, firm and of excellent quality. It is one of the very earliest to ripen its first fruits and it continues to furnish marketable fruits much longer than other very early varieties.

June Pink. The earliest of the pink tomatoes and one of the very best for the family garden. The skin is thin, very smooth, flesh solid, of excellent quality and flavor.

Ponderosa. This is a very large, solid tomato Color pink, changing to purple. On account of its large size it is suitable to grow for exhibition purposes. It is of good quality, however, and very largely in demand for home gardens.

Stone. A large, bright-red tomato, very well known and highly regarded. One of the very best for canning purposes. Good also for slicing. Matures early and very uniformly. Vigorous and productive.

Golden Queen. Large, smooth fruits of a beautiful golden color; quality excellent.

SMALL-FRUITED TOMATOES

Strawberry, or Husk Tomato. Also called Ground Cherry. The small yellow fruits are each enclosed in a husk, and are of delicious flavor, either raw or preserved.

Yellow Plum and Red Cherry.



Early Detroit Tomato

TURNIP

Spring plantings of turnips are important, although the general crop for winter is sown late in the summer or fall.

For summer use sow early in spring in light, rich or new soil, in drills one and one-half to two feet apart according to the size of the variety and cover one-half inch deep, or sow broadcast, but in either case be sure to have the ground rich and freshly stirred. Thin early and keep free from weeds so that the young plants will not be checked in growth. Any over-crowding will result in rough and poorly flavored roots. It is important to get the spring and summer crop started very early so that the turnips may have time to grow to sufficient size before hot weather causes them to become tough and bitter.

In the middle and western states sow for fall and main crop from the middle of June to the first of August and in the manner given for spring sowing. In the field, turnips are often sown broadcast, though in most cases better results are obtained by drill culture; good results from broadcast sowing are often obtained on new and burned over land where the weeds are not likely to be troublesome.

Especially where not properly sown and cultivated, turnips are sometimes affected by the root maggot and the flea beetle. Among the remedies employed for the maggot are the application of sand and kerosene, to the soil about the roots when small. A preventive that is considered much better is a rotation of crops. The flea beetle may be checked by spraying the plants with a nicotine preparation such as black leaf 40, or by sprinkling with dry arsenate of lead diluted with land plaster in the ratio by bulk of one to fifty.

For winter keeping, store the turnips in a cool cellar and cover with sand or turf to keep them fresh. Another method is to put them in a pit dug in dry soil where there will be no danger of water standing and to cover with straw overlaid with earth sufficiently deep to keep out frost.

One ounce of seed for 200 feet of drill; $1\frac{1}{2}$ to 2 lbs., for an acre.

Purple Top White Globe. A fine table turnip. It is an early and heavy cropper as well as a good keeper. The bulb is a very handsome globe, and is especially suitable for the home garden. This is also a good turnip for stock feed, as it will grow to a large size if left for that purpose.

Purple Top Strap Leaf. This is probably more extensively planted than any other variety. It is a very early flat turnip of medium size, the lower portion white and the upper part reddish purple. The flesh is fine-grained and sweet. A splendid table variety.

Early Purple Top Milan. The best for spring sowing. Of handsome appearance; somewhat flattened, white with purple top. Bulbs forms very rapidly.

Early White Milan. Similar in shape and size to the above, equally early; surface smooth and pure white; flesh white, tender, fine grained and of fine table quality.

Early White Flat Dutch. A popular, early white, flat turnip of medium size. Smooth and of good quality.

White Egg. A good, early, oval-shaped turnip. Grows partly out of the ground. White and smooth skin, flesh mild and sweet.

Cow Horn. A long, white, carrot-shaped turnip, growing to a length of 12 to 14 inches. Flesh white and solid. Suitable for table use when small, and when matured excellent for feeding stock. This variety is sometimes planted to plow under as a fertilizer.

Yellow Globe. A handsome light yellow turnip. Fine grained, sweet and tender.

RUTA BAGA or SWEDE

The Ruta Bagas as a class have firmer flesh than Turnips but require a longer season for maturing and usually are more esteemed for winter use, while Turnips are better adapted for the early market. Under most conditions of growth Ruta Baga roots are not so smooth on the surface nor as symmetrical in shape as Turnips but yield heavily, are superior keepers and are the more prized for stock feeding.

Sow the seed from the middle of June to the middle of July, in ground previously enriched with well-rotted manure, in drills about two and one-half feet apart, covering about one-half inch deep. Thin the young plants eight to twelve inches apart in the row. When the roots are full grown and before hard freezing weather, pull them, cut off the tops and store in a root cellar or pit. Ruta Bagas are sometimes sown broadcast and left to take chances with the weeds but the crop is seldom a success, though occasionally on new clearings free from weed seed, fair results may be obtained.

American Purple Top. Hardy, vigorous growing variety of excellent quality for the table and one of the best for stock feed.

White Swede or Russian. A large white, globe-shaped Rutabaga. Flesh fine quality, sweet and tender. Excellent for the table. Can be grown to a large size if wanted for stock feed.

TOBACCO

The seed should be sown as early as possible after danger of frost is over. When the plants are about six inches high, transplant into rows 3 or 4 feet apart each way.

Connecticut Seedleaf. This variety is grown in the Middle and Northern States.



Purple Top Turnips.

A Descriptive List of
SELECTED FLOWER SEEDS
 With General Directions for Cultivation

Most flowering plants will live in almost any soil, but to give them a fair chance to develop, some care should be taken to make the ground suited to their needs. The soil best adapted for flowering plants generally is a light, friable loam, containing a sufficient amount of sand to render it porous. Many flowers are better if produced on plants of vigorous growth, hence a portion of the garden should be prepared by deep digging, thorough pulverization and liberal enriching with large quantities of well-rotted manure. Since some other varieties produce the largest and finest colored flowers when grown on rather light, poor soil, a portion of the garden should not be enriched.

Cultural directions are given on the packets, and we urge purchasers to study them carefully. While some seeds need special treatment, the following general rules will apply to all. Make the surface of the soil as fine, smooth and level as possible; do not plant when the ground is wet.

It will prove quite an advantage to mix all small seeds with sand or dry soil and sow the mixture in drills or scatter broadcast. This separates the seed and is quite an advantage in thinning out or transplanting the young plants as those that remain are undisturbed. A common mistake in sowing flower seeds, is covering too deeply. The exception to this is the Sweet Pea, which is seldom planted deep enough. As a general rule, cover small seeds only to the depth of the thickness of the seeds; or, with medium-sized seeds, like Balsams, Zinnias, etc., half an inch or so is none too much. Such fine seeds as Petunias, Portulacas, etc., need only be pressed into the soil with a piece of board. Always press the earth after sowing all flower seeds, else there is danger of their drying up before the roots can get firm hold of the soil. Seeds of the hardier Annuals may be sown where they are to grow; but, as a rule, it is preferable to transplant, as the plants are generally stronger and stand the drought better. During very dry weather, and when the seedlings are first set out, they should be watered frequently. Provide some support for all such plants as require it.

The weeds should be kept down and the ground loosened often, so that the plants will receive the full benefit of the rains and dews, which they will not if the ground is allowed to become hard and baked.

AGERATUM

A beautiful, hardy annual of neat bushy habit. The attractive feathery flowers borne in dense clusters are very useful for bouquets. Very desirable for outdoor bedding and borders, being covered with bloom nearly all summer.

Sow outdoors after danger from frost is over; or for earlier blooming start under glass and transplant. Cover the seed with one-eighth to one-fourth inch of fine soil firmly pressed down.

To prevent sowing too thickly mix the seed with sand before sowing. Valuable for Candytuft, etc. Dwarf varieties are suitable for edgings.

ALYSSUM

Hardy annual of dwarf habit, blooming until killed by frost. Fine for beds, borders, and vases. The snow-white flowers are fragrant and lasting. Keep the seed pods sheared off the plants and they will bloom until killed by frost. Sow the seeds wherever the plants are to remain. If too thick, thin out. To prevent sowing too thickly mix the seed with sand before sowing.

Sweet Alyssum. This very hardy annual for borders, edging or massing in small beds, comes into bloom early in the spring, covering itself with clusters or trusses of small, pure white cruciform flowers. They have a peculiar, delicate fragrance and are useful in small bouquets. Usually not over eight inches high but spreading.

"Little Gem" Alyssum. We know of no other flower which is so particularly well adapted for borders, ribbons, etc., as "Little Gem" Alyssum. The plants commence to bloom when quite small and will flower all summer long until late in the fall. Very compact.



Ageratum.

ANTIRRHINUM (SNAPDRAGON)

For gorgeous coloring few flowers can match Snapdragons.

ANTIRRHINUMS or Snapdragons are now receiving the attention they deserve. They are undoubtedly one of the best cut flowers which can readily be grown from seed, while for beds or borders they are a constant source of pleasure, being in flower all the time. They succeed best in a rather light soil, in a sunny position. For early flowering, sow in fall, protecting the plants with a covering of leaves through the winter. Sown in spring they bloom by mid-



Alyssum.

summer, and if the flowers are cut freely the flowering is continuous till fall. If intended for winter flowering in the house, cut them well back in September. The Snapdragon, like most perennials and biennials which bloom the first year, is treated like an annual and sown every year.

ASTERS

The early sorts begin blooming in July, followed by the midseason kinds, which flower during August; then the late-flowering varieties, which are at their best through September. It is quite easy, therefore, with a little care in the selection of the varieties, to have Asters in flower from the first days in July until hard frost.

Asters will thrive in any good soil, prepared in the same way as you would for a crop of vegetables, but it is well to remember that any extra care taken in the preparation of the soil is repaid by finer plants, larger blooms, with longer stems and more profuse flowering. They should have an open, sunny position, and prefer a good, heavy, loamy soil, enriched with a liberal quantity of thoroughly rotted manure, and the addition of wood ashes or air-slacked lime, and we do not advise growing them on the same ground two years in succession. Sow either in the open ground in May, or in March or April in cold frame, spent hotbed or pots or boxes in the house, covering the seed with about one-fourth inch of good soil. When the plants are strong enough transplant about 18 inches apart in deeply dug, well-prepared beds. Half hardy annuals.

SEMPLE'S BRANCHING ASTER

The form of the flowers, which are borne upon long stems, places this Aster among the best late-blooming varieties. Height, 2 feet.

White. Crimson. Pink.
Purple. Separate Colors.

Queen of the Market Aster

This is earlier than other Asters, and therefore a favorite. Beautiful flowers of large size and fine appearance, borne on stiff stems. Mixed colors.

Giant Comet Aster

A beautiful and distinct class with long curled and twisted petals gracefully formed in loose dense double globes. 18 in. Mixed colors.



Semple's Aster.

BALSAM

Lady Slipper, or Touch-Me-Not

One of the oldest and best known summer-blooming annuals of easy culture. Desirable for garden or pot culture.

Balsams need rich soil, hot sun, and plenty of water. Sow the seed half an inch deep in window boxes or hotbeds early, or in the open air in May, and transplant when two or three inches in height. Stimulate by weekly applications of liquid manure.

The delicate flowers of waxy texture are borne along the stems among the leaves. Mixed colors.

Bachelor's Button, or Cornflower

These beautiful annuals are much admired. They are plants that everybody can grow, blooming with great freedom all summer. The plants grow about two feet high. We offer a mixture of the prettiest colors. Mixed colors.

Calendula

(Pot Marigold)

This is the "Marygold" of Shakespeare's time; one of the best and showiest free-flowering hardy annuals, growing in any good soil, producing a fine effect in beds or mixed borders, particularly bright in late fall. Mixed varieties.

California Poppy

(Eschscholtzia)

Fully as valuable as the common Poppy for garden ornamentation since the flowers are in bloom through a much longer season. A bed in full bloom of these large saucer-shaped flowers in various shades of yellow with orange center gives a brilliant color effect. The foliage is finely cut and has a bluish tinge or bloom, delicate and very attractive.

Sow seed early in spring or late in autumn where plants are wanted to bloom as they do not bear transplanting well. Use well pulverized soil, make the rows one foot apart and cover the seed one-fourth inch deep. Thin six to eight inches apart. Effective results are also obtained by thinly sowing broadcast and lightly raking in the seed. Hardy annual, low spreading; about one to one and one-half feet high. Mixed colors.



Balsam.



Candytuft

CALLIOPSIS

Showy and beautiful free-flowering annuals, of the easiest culture, doing well in any sunny position, blooming all summer, and excellent for cutting and massing. It is best to sow them where they are to bloom, thinning out to stand 8 inches to 12 inches apart. By keeping the old flowers cut off the flowering season can be lengthened until late autumn. Mixed varieties.

CANDYTUFT

Showy, branching plants twelve to fifteen inches high and bearing in profusion terminal clusters of beautiful single cruciform flowers in a wide range of colors. Considered indispensable for cutting and very effective in beds, masses or rockeries.

If sown in spring in rich, mellow soil the plants will usually bloom from July to September. Make rows about one foot apart and cover the seeds with about one-fourth inch of fine soil firmly pressed down. When two inches high thin to six inches apart in the row. Larger flowers are obtained if some of the branches are removed, and an abundance of water is desirable. Hardy annual. Mixed colors.

CARNATION

The choicest varieties sold by florists are propagated from cuttings but very beautiful double flowers just as good in form and more fragrant, although not as large, can be produced from seed. Sow under glass in the greenhouse or hotbed from January to March. Use well prepared soil, cover lightly and keep in a temperature of about 60° F. Sprinkle with a fine spray. When the young plants are of a sufficient size transplant them out of doors two feet apart each way, or the seed may be sown in permanent bed as early in spring as weather will permit. Mixed colors.

CASTOR BEAN

Tall majestic plants for lawns or driveways; with broad, beautifully lobed, palm-like leaves of glossy green, brown or bronzed metallic hue and long spikes of scarlet, or of green, prickly seed pods. Makes a rapid, vigorous growth in rich soil. Sow seed outdoors after danger from frost is over, preferably in light rich soil, or for earlier blooms start indoors and transplant. For best development each plant should have at least four feet each way. Its rich, luxuriant growth makes it very attractive for a long distance either grown singly or in groups, or as center plants with Cannas, Dahlias, etc., giving a semi-tropical effect. Tender annual; six to fifteen feet high. Mixed varieties.

CHRYSANTHEMUMS

Annual Varieties

Summer-blooming garden annuals, of compact, thrifty growth, 1 to 1½ feet high, producing quantities of large single flowers, 2 inches across. Colors, crimson, gold, maroon, white, etc.; very effective for flower beds, pot culture and for cut flowers. Plants grow quickly and flower freely.

These are summer-flowering border plants, and quite distinct from the hardy perennial varieties which are grown from cuttings and root divisions. Mixed colors.

COBAEA SCANDENS

A rapid growing climber with handsome dark green foliage, bearing on graceful stems large, bell-shaped flowers, green at first but rapidly changing to a beautiful deep violet-blue. A wire-netting trellis or support for the many green tendrils to fasten upon is preferable to cords or smooth wire. A well established plant will run about thirty feet in a season.

For best results start indoors early in spring in rather dry soil and set out the young plants after danger of frost is past. Tender perennial.

COCKSCOMB

Highly ornamental plants producing crested heads of flowers resembling a cock's comb. The flowers are of many colors and shades, but the scarlet and crimson are the most brilliant and rich. Showy plants may be raised from seed planted in open ground in May. The oftener they are transplanted or shifted the larger and more beautiful they grow. Should be planted about 2 feet apart. Mixed colors.



Cobaea Scandens—Cathedral Bells



Giant Flowered Cosmos

COSMOS

Very effective for autumn flowering in broad masses or backgrounds. A hardy and rapid growing annual, forming bush-like plants with feathery green foliage, four to six feet high, covered with large flowers somewhat resembling the single dahlia. They are gracefully poised on long stems and very useful for decorative purposes.

Sow outdoors early in spring in rather light soil, not too rich, and preferably in a sunny situation. Cover the seed with one-fourth to one-half inch of fine soil firmly pressed down. If planted in rows, make the rows about two feet apart and when the young plants are well up, thin from twelve to eighteen inches apart in the row.

Early Flowering Cosmos

These early flowering strains are about four feet high and bloom profusely four to six weeks earlier than the giant sorts. The flowers are of good size; well adapted to northern latitudes.

Early Flowering Mixed

Includes white, bright red and rose colored flowers.

GIANT-FLOWERED COSMOS

These do not usually bloom until late.

Giant Mixed

Flowers white and in shades of pink, rose and maroon.

CYPRESS VINE

A most beautiful rapid growing climber with delicate dark green, feathery foliage and many bright, star-shaped, scarlet or white blossoms. Planted by the side of veranda, tree or stakes, and trained properly, there is no handsomer climber.

Seed is usually sown outdoors early in spring in the row where the plants are to remain. Cover seed one-half inch deep. Germination will be hastened if the soil is warm and kept in moist condition. Thin the young plants four to six inches apart. Tender annual; about fifteen feet high. Mixed colors.

DAISY

(Double English Daisy)

A favorite perennial plant, which will stand the winter if given the protection of a few leaves or litter; in bloom from early spring until well on in the summer. Easily raised from seed; usually sown in August, but can be sown in spring for blooming the following season and for best results should be sown each year; height, 4 inches. Mixed colors.

FORGET-ME-NOT

This is a favorite old-fashioned flower, bearing in profusion, especially in fall and spring, clusters of dainty blue five-petaled blossoms. It thrives well in the shade or open border but flourishes best in a moist, shady situation.

For bloom the first year sow indoors in February or March, and transplant as soon as the ground is warm enough, or sow outdoors as early as possible, covering seed one-quarter inch deep; thin to six inches apart. Seed may also be sown in fall. Hardy perennial but usually does better if given some protection during winter. Mixed varieties.

FOUR O'CLOCK

Large and beautiful, old-fashioned plants of erect bushy habit which produce in profusion a succession of brilliantly colored tube-shaped flowers, that open about four o'clock in the afternoon, remaining open all night and usually are closed before noon the next day. The flowers are red, white, yellow, or are striped and blotched in shades of these colors. Very desirable for borders, along a wire fence, or as the background of a flower garden, blooming during the late summer and autumn.

Sow seed in spring in open ground after danger of frost is over, covering one-quarter inch deep. For best development allow two feet apart each way. Hardy annual, about two feet high. Mixed colors.

GAILLARDIA

(Blanket Flowers)

Showy annuals, blooming from early Summer until Fall. Petals banded with crimson, orange and yellow. Mixed varieties.

GOMPHRENA

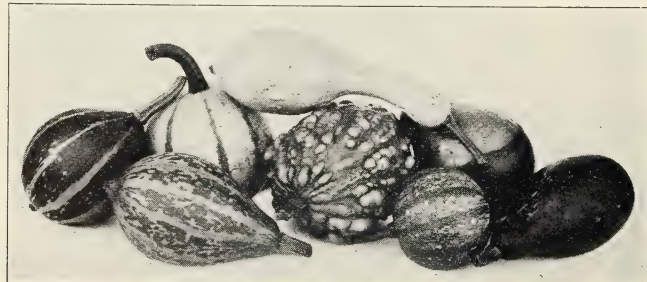
(Globe Amaranth)

Annual. 1 to 2 ft. One of the choicest of the Everlasting Flowers. With clover-like heads which retain their shape and color splendidly for the winter bouquet. In red, pink, and white colors mixed.

GOURD

A very extensive genus of trailing annuals with curiously shaped yellow fruit, commonly known as Ornamental Gourds. The vines are of easy culture and make a rapid growth, so are much used for covering old fences, trellises, stumps, etc. The foliage is ornamental, and the markings of some of the fruit extraordinary.

Do not plant the seed till danger of frost is over, and select light, rich soil and a sunny situation. Water freely. Tender annual; ten to twenty feet high. Mixed varieties.



Gourds—Ornamental

HELICHRYSUM

Sometimes called Straw Flower. Large full, double daisy-like flower heads with prominent centers and stiff overlapping scales, produced in various shades of bright yellow and scarlet on stems of good length. Desirable as dried specimens for use in making winter bouquets. For this purpose the flowers should be gathered when on the point of expanding.

Sow early in spring; thin to one foot apart each way. Hardy annual; two to two and one-half feet high. Mixed colors.

HOLLYHOCK

For background to a flower garden nothing is better than the improved strains we offer of this tall old-fashioned garden favorites. The large, richly colored blossoms about three inches across, ranging from deep yellow and red to pure white, are set as rosettes around the strong growing flower stalks.

Sow seed in June or July, in open ground, and in the autumn, transplant to permanent position two to three feet apart. The following summer they will bloom. They are biennial, but if the flower stalks are cut off as soon as they are through blooming they may prove perennial.

HYACINTH BEAN

A fine climber with clusters of purple or white flowers followed by ornamental seed pods. Tender annual; from ten to fifteen feet high.

Desirable for covering trellises and porches. Sow seed in sunny spot in May. Purple and White, mixed.



Hyacinth Bean



Hollyhocks

KOCHIA

(Summer Cypress, or Mexican Firebush)

A quick growing foliage or hedge plant, very symmetrical and attractive in summer and fall. The foliage is as fine as moss and of clean, bright green color. Early in the fall innumerable little flowers appear and the bush takes on a deep red tinge. Sow outdoors early in spring, covering one-fourth inch deep. Make the rows two feet apart and thin eighteen inches apart. Hardy annual; about two and one-half feet high.

LARKSPUR

(Annual)

An old time annual of branching erect habit, having showy red, white and blue flowers during the entire summer. Good for cut flowers.

These include the Rocket and Hyacinth-flowered with their long narrow flower spikes as well as those of branching or candelabra habit. Sow seed $\frac{1}{4}$ in. deep as early in spring as possible where they are to bloom. Thin out plants to 12 inches apart. Mixed colors.

LOBELIA

Exceedingly pretty plants, both for edgings to garden borders as well as for pots and hanging baskets. Their little flowers, mostly blue or blue and white, are very graceful. Seed needs little or no covering. Mixed varieties.

Marigold

No flower garden seems complete without this fine old-fashioned garden plant with its brilliant displays of yellow and orange, both tall and dwarf sorts, and with finely cut or entire bright green foliage. The African varieties are tall, usually one and one-half to three feet, and are well adapted for large beds, backgrounds of mixed borders, while the French are more dwarf and are often used for borders and pot culture as well as bedding.

For best results start seed early indoors and transplant twelve inches apart when danger from frost is over, but good blooms of all varieties of Marigold are often successfully obtained from seed planted in the open ground after danger from frost is past. Make the rows one foot apart. Use well pulverized soil, preferably light sandy loam and cover the seed with about one-fourth inch of fine soil firmly pressed down. When about two inches high, thin six to twelve inches. Hardy annuals; in bloom till frost comes.

DOUBLE AFRICAN MARIGOLDS
DWARF FRENCH MARIGOLDS

Mignonette

A well known hardy annual producing dense cone-shaped flower-spikes, made up of thickly set florets of modest colors. It is often used for cutting to combine in bouquets with other pretentious flowers lacking its delicate and pleasing fragrance. Seed is usually sown outdoors after danger of frost is over and if sown at intervals in spring and early summer a succession of bloom, under favorable conditions, is assured till frost. Well pulverized soil, preferably light sandy loam, should be used and the seed covered one-fourth inch deep. Make rows one foot apart; thin to six inches. Thrives best in a cool temperature and is usually most fragrant in rather light soil. Hardy annual; one foot high. Mixed varieties.



African Marigold

Morning Glory

A handsome showy climber of easy culture and suitable for covering arbors, windows, trellises, old stumps, etc. The flowers are most brilliant in the morning. Hardy annual.

Seed is usually sown outdoors early in spring in row where plants are to remain. Well pulverized soil should be used and the seed covered one-half inch deep; thin four to six inches apart. If very early blooming is desired, seed may be started indoors and transplanted. Give some support such as strings or cord to the vines as soon as they begin to run and they will often exceed ten feet in height before the season is over. Seed triangular, black, except the White variety, which is light yellow. Mixed. Many shades from white to dark blue, red and striped.

CONVOLVULUS MAJOR (Common)

JAPANESE (Large-flowering)

Mourning Bride

An old-fashioned but most attractive flower. Its great abundance and long succession of richly colored, fragrant blossoms on long stems make it one of the most useful decorative plants of the garden. Desirable for cutting as well as for beds and borders. Flower heads about two inches across; florets double, surrounding the thimble-shaped cone, and giving a fancied resemblance to a pin cushion.

Seed may be sown in place as soon as ground can be worked; or for earlier blooming sow in hotbed early in spring and transplant one and one-half feet apart. Hardy annual; about two to two and one-half feet high. Mixed colors.



Morning Glory

NASTURTIUM

Few plants are more easily grown or remain longer in bloom than the **Tropaeolum**, with its large shield-shaped leaves and beautifully irregular flowers having long spurs and brilliantly colored petals. In favorable soil flowers are produced in abundance throughout the season. Much used for window boxes. If the black aphid appears spray the foliage vigorously with water.

Seed is usually sown outdoors as soon as the weather is warm and settled, in the row where the plants are to remain. Well pulverized soil, preferably well drained and moderately rich, should be used and the seed covered with about one inch of fine soil firmly pressed down. A sunny situation is essential for free blooming. If the soil is very rich the plants give a large amount of foliage but few flowers. For earlier blooming, start indoors and transplant to the open ground after danger of frost is over.

TALL, OR CLIMBING NASTURTIUMS

Luxurious climbers for verandas, trellises, etc. May be used to cover unsightly railings and to trail over rough ground with fine effect. The seedpods can be gathered while green and are fine for mixed pickles. Mixed colors.

DWARF OR TOM THUMB NASTURTIUMS

The flowers are brilliant and attractive. The plants are evenly dwarf and are often used for a border. When about two inches high, thin so as to give each plant about one foot of room. Hardy annual; about one foot high. Mixed colors.

NICOTIANA

(Sweet Scented Tobacco Plant)

One of the easiest annuals to raise and one of the most effective. The blossoms in shape are not unlike a Petunia blossom, but with a longer tube. The flowers open toward evening and emit a powerful perfume.

Quickest results will be had by sowing the seed in sunny window or frames though it may be sown in the open. Cover very lightly and thin out the seedlings to stand one foot apart.



Nasturtiums



Pansies

HINTS ON THE CULTURE OF FLOWERS FROM SEED

Much annoyance and disappointment may be saved by giving close attention to the following: Avoid especially deep planting, over-watering, under-watering or sowing too thickly.

PANSIES

Seed sown in shallow boxes in the house or, preferably, in a cold frame, where one is available, will produce fine flowers in summer and all through the fall. If the seed is sown in spring out doors in a partially shaded location, the seedlings will bloom in autumn. The plants, if given a slight protection of leaves, usually come through the winter unharmed. Take care of the weakest looking seedlings, as they usually give the finest flowers.

Pansies thrive best in cool, moist soil which should be enriched by well-decayed barnyard manure or finely ground bone meal; the flowers will be much larger and possess greater substance in their petals. Where extra large blooms are desired, it is recommended to pinch off all but two or three to the plant. Mixed colors.

PETUNIAS

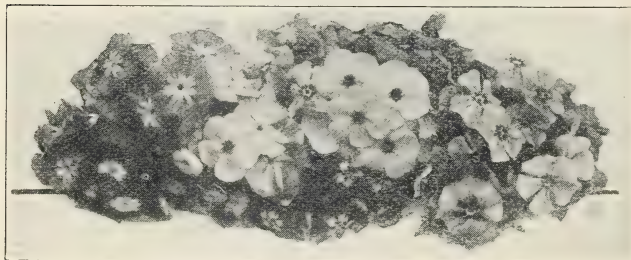
Few plants have come into general favor so rapidly as this Petunia, which, by its great profusion and persistence of bloom, its luxuriant growth and freely-branching habit, is indeed remarkably suited for bedding the decoration of window boxes, baskets and vases. The flowers, while not large, remain boldly expanded, and in their profusion hide the plants for months. The seed may be sown outside in well prepared ground early in May; to facilitate sowing the seed may be mixed with sand or dry soil; scatter the mixture and just press in the ground. Thin the seedlings to 8 to 12 inches apart. It is an advantage to sow the seed early in boxes in the house or hotbed for window boxes, baskets and also for bedding out. Mixed colors.



Petunias

PHLOX

The annual Phloxes are dazzling in effect, particularly so when sown in masses or ribbon beds of contrasting colors. Few flowers are so easy to grow from seed, so pretty and compact in habit, so quick to bloom, or give such a brilliant display of color or so little cost or care. For pot culture, and as undergrowth for tall, bare-stemmed plants they are also valuable. The first sowing should be made as soon as the frost is out of the ground in spring, later ones in May, either where the plants are to bloom, or in a seed-bed, as the Phlox transplants readily. In transplanting, set the taller kinds about a foot apart. Cutting away the old flowers makes the plants more bushy and compact, and lengthens their blooming time. Mixed colors.



Annual Phlox

PINKS

A magnificent genus, embracing some of the most popular flowers in cultivation, producing a great variety of brilliant colors and profusion of bloom. The varieties classed as annuals are really biennials, but are treated as annuals and may be sown out of doors when the danger from frost is past, and in a few weeks' time they are a mass of bloom, continuing so until after hard frost. As a rule, they survive the winter if given slight protection, flowering abundantly the following season. They grow about a foot high and can be used in beds or borders of solid or mixed colors. The double-flowering sorts are almost as fine as Carnations for cutting. They are not particular as to soil, but should have a sunny location.

Seed may be sown in the open ground in spring after danger of frost is past, in the place where the plants are wanted to bloom. Use well pulverized soil, preferably sandy loam. Make the rows one foot

POPPIES

Annual Poppies should be sown as early in the spring as possible where they are to remain, as they do not stand transplanting. Mix the seed with dry sand and sow very thinly. If they come up too thickly they must be thinned out to stand 5 to 6 inches or more apart if you wish best results.

Shirley Poppies. They are single and occasionally semi-double, and range in color from the purest white through the delicate shades of pale pink, rose and carmine to the deepest crimson and blood-red, while many are daintily edged and striped. In fact, so varied are they that scarcely any two flowers are exactly alike.

Single Annual Poppies. Mixed colors.

Double Annual Poppies. Mixed colors.

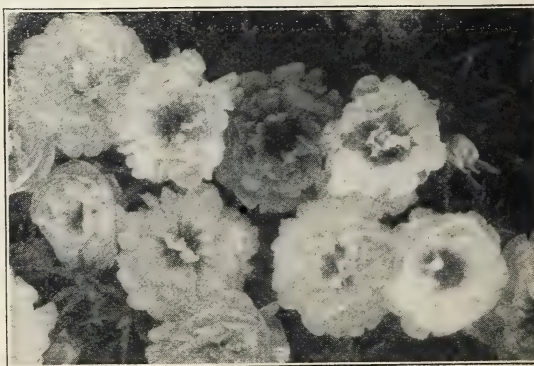
PORTULACA

(Sun Plant or Rose Moss)

One of our finest hardy annual plants, of easy culture, thriving best in a rather rich, light loam or sandy soil, and luxuriating in an exposed sunny situation; the flowers are of the richest colors, and produced throughout the summer in great profusion; fine for massing in beds, edgings or rock-work, and frequently used to sow broadcast over sunny banks, etc.; in any case it is well to mix the seed with three or four times its bulk of dry sand or soil, which permits an even and easy distribution of the seed; 6 inches high.

Single, Mixed Colors.

Double, Mixed Colors.



Portulaca

to fifteen inches apart and cover the seed with one-fourth inch of fine soil firmly pressed down. When two inches high, thin six to eight inches apart. Plants compact, bushy, usually about one foot high. Mixed colors.

SALPIGLOSSIS

Very showy bedding or border plants with richly colored, funnel-shaped flowers which are borne on long graceful stems. The flowers of purple, scarlet, crimson, yellow, buff, blue or almost black are beautifully veined or penciled and are excellent for cut flowers. They are easily grown and are most desirable for beds or borders.

For early blooming seed may be started indoors as early as the middle of March and the young plants set out in the garden one foot apart, or seed may be sown outdoors after settled warm weather. Blooms from August to October. Half hardy annual; about two feet high. Mixed colors.

SALVIA

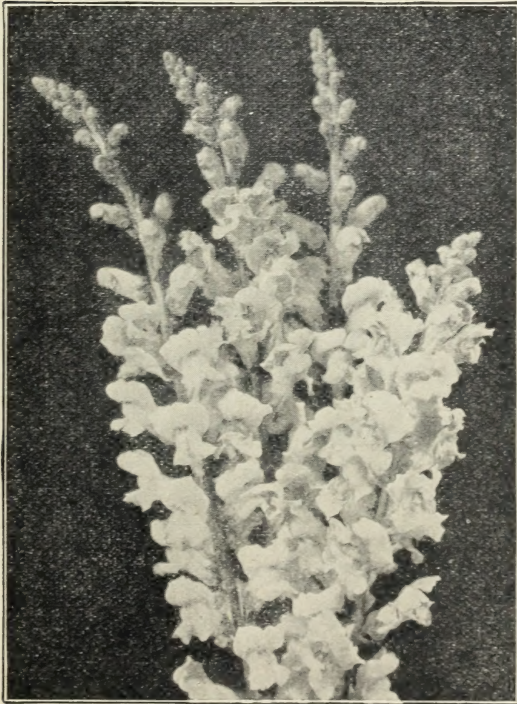
Among the most brilliantly colored of garden flowers and extremely useful for bedding; also valuable for pot culture. Blooms are borne in long spikes well above the foliage and are of fiery red, continuing in flower a long time. The densely filled flower spikes are often eight to ten inches long and include thirty or more tube-like florets, one to two inches in length.

Start early in heat and transplant into light soil one to two feet apart; or seed can be sown outdoors after danger from frost is past. Tender perennial, but blooms the first season; height one and one-half to three feet. Fine varieties.

SCARLET RUNNER BEANS

A rapid growing annual climber, bearing sprays of brilliant scarlet pea shaped blossoms. Used either as a snap or shell bean for eating as well as being desirable for ornamental purposes. Seed may be planted out of doors as soon as danger of frost is past. Vines ten to twelve feet high.

• SNAPDRAGON (See *Antirrhinum*)



Giant *Antirrhinum* or Snapdragon



Salvia

STOCKS—Gilliflower

Stocks last a long time in bloom, are beautiful, fragrant and satisfactory.

Stock seed may be sown in the open ground, or in the hotbed or cold frame, but if transplanted, let this be done when the plants are small, just out of the seed-leaf, or the plants become slender and never make good plants nor flower well. Transplant one foot apart. Mixed colors.

Straw Flowers, or Everlastings

A group of annual plants whose flowers, cut when nearly at full bloom and dried in the shade, retain their form for months. They thrive in any sunny garden.

Of late there has been a revival of interest in the so-called "Strawflowers," and we find much demand for seed. We have secured additional colors, making an excellent mixture. For winter use gather before the blooms expand and hang heads downwards in the cool place. Sow seed about $\frac{1}{4}$ -inch deep and thin out the seedlings to stand 10 inches apart.

SUNFLOWER

These stately, old-fashioned flowers with the newer improved varieties are coming into special favor as a background for lawns and in front of high fences. Valuable also as a screen to hide unsightly places and sometimes used to mitigate the evil of adjacent swamp holes. Their very tall dense growth and bright yellow disc-like flowers of very large size and long-blooming period make them one of the most deserving and useful of hardy annuals.

Sunflowers grow readily in almost any soil but do best on light, rich limestone or alluvial land well supplied with moisture and not shaded by trees or buildings. Sow the seed outdoors in spring after danger of frost is over, preferably in well pulverized soil either broadcast or in rows two to three feet apart and cover about one-half inch deep. When the young plants are about four inches high, thin one-half to two feet apart to secure the best development. Mixed varieties.

SWEET PEAS

No garden is too small for a row of Sweet Peas. Its blooming season usually extends from early summer until very hot dry weather and no other climber equals it for cutting, either for use in bouquets or for table decoration.

HOW TO GROW SWEET PEAS. The principal essential for the best success is a cool, deep, moist soil, and a sunny situation. The ground should be prepared deep and rich. Fall preparation, where possible, is preferable, but if done in the spring, use no green manure. Bone meal is good if old rotted manure can not be obtained. Sow early, as Sweet Peas need the cold, moist spring ground to make the root growth. In the latitude of Chicago, early in March is not too early. Sow the seed in deep furrows, the bottom of which must be at least 6 inches below the level of the soil; this is to guard against a summer drought. Cover the seeds only one inch, after which the furrow is still five inches deep. When the plants are 2 inches high, thin out to 3 or 4 inches apart and fill in another inch or so of soil around the plants, always leaving a portion of the plant above the surface; do this at intervals until the furrow is nearly full; it should always remain a little hollow to hold the rains, and to allow water to be applied in quantity when necessary.

During dry weather they should be watered thoroughly and frequently and given an application of liquid manure once a week. A mulch of hay or rakings from the lawn will be found beneficial during hot weather. The flowers should be picked as often as possible, and all withered blooms should be removed to prevent the plants from running to seed, which would stop them from continuing in bloom. Mixed colors.

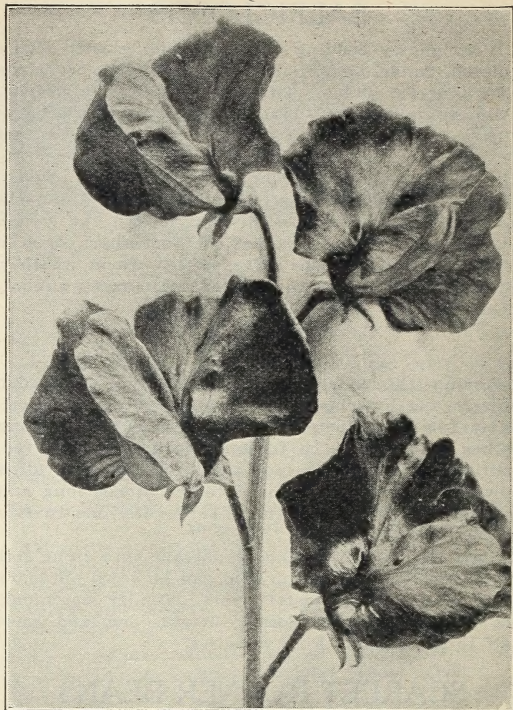
SWEET WILLIAM

It is one of the most desirable for display in the garden. The plants are easily grown, hardy and free flowering. They produce a succession of flower clusters, thus affording splendid bloom for several weeks. The florets are handsomely colored and marked and are borne on stiff stems in great profusion, forming dense round topped heads or clusters, often three to four inches across. The colors are exceedingly varied, ranging from white through many shades of rose, lilac, red, carmine, crimson and maroon to nearly black, usually two shades to each plant.

Sow outdoors very early in spring, preferably in rich, mellow soil, in rows one foot apart. Cover seed with one-fourth inch of fine soil firmly pressed down. When two inches high, thin to six inches apart. In the more northerly latitudes, protect with mulching in winter. Seed can also be sown in fall. There are usually no flowers until the second season, but if seed is started very early under glass and transplanted, blooms may be had late in autumn. The old clumps may be divided but it is usually more satisfactory to start vigorous young plants every year or two. Mixed colors.



Sweet William



Sweet Peas

VERBENA

This well known annual of low growing recumbent habit of growth is very desirable for massing in beds on the lawn. It is suitable also for borders and window boxes. Large clusters of showy flowers are borne in succession through a long season until frost. Each truss or cluster is about two to three inches across, and includes a dozen or more single flowers about three-fourths of an inch across, tubular with five spreading lobes. The length of stem and texture of the flowers make them of value for bouquets and table decorations. There is a wide range of colors, shades and stripes usually running from pure white to deep purple.

Verbenas usually flower well in August from seed sown in open ground in May. Germination will be hastened if the seed is soaked in lukewarm water before planting. It is desirable to have the soil well fertilized and carefully pulverized. Cover seed about one-fourth inch deep. When the young plants have three or four leaves transplant in rows two feet apart and about twenty-four inches apart in the row, choosing preferably a sunny situation. At this distance the plants, if conditions are favorable, will spread so as to cover the ground completely.

Earlier blooming may be had if plants are started indoors and transplanted in the open ground after danger of killing frost is over. Half hardy perennial, usually treated as an annual. Mixed colors.

ZINNIA

Sometimes called Youth and Old Age. The well known bush-like plants of Zinnias produce a profusion of large double imbricated flowers, borne on stiff stems. They are much used for bedding and are suitable for borders and for cutting.

There is much satisfaction in a bed of Zinnias with their twisted and recurved petalled flowers in many bright colors, and when nearly every other flower has been killed by frost this plant is still in full bloom. Few flowers are more easily grown or bloom more abundantly throughout the season, and the wide range of color is not less remarkable than their unusual depth and richness.

Sow the seed early in spring, in open ground in good rich soil, preferably in rows one and one-half feet apart and covering about one-fourth inch deep. When the young plants are one to two inches high thin to twelve inches apart. Start under glass for earlier blooming. Half hardy annual; tall growing, usually about one and one-half to two feet high. Mixed colors.

Planting Table for Small Vegetable Gardens

Quantity of seeds or number of plants required for a row 100 feet in length, with distances to plant, times for planting, and period required for production of crop in the central states.

Where "packets" are mentioned the quantity is based upon the liberal packages as supplied by us.


NOTE—*Denotes the quantity of seed suggested in table should raise sufficient plants to transplant into a row 100 feet long. The seed should be sown in hot-bed from February to March for earliest results and later may be sown in a cold frame; if neither are at your command sow the seed in a well prepared seed bed in the open after the frosty weather has passed. (See table.)

DISTANCE FOR PLANTS TO STAND

Kind of vegetables	Seed or plants required for 100 feet of row	Rows apart, hand cultivation	Plants apart in rows	Time of planting in open ground	Ready for use after planting
Artichoke, Globe	½ oz.	2 to 3 ft.	2 to 3 ft.	Early spring	15 mos.
Artichoke, Jerusalem	2 qts.	1½ to 2 ft.	1 to 2 ft.	Early spring	6 to 8 mos.
Asparagus	1 oz.	1 to 2ft.	3 to 5 in.	Early spring	3 to 4 yrs.
(for transplanting)					
Asparagus Plants	60 to 80	30 to 36 in.	15 in.	Early spring	1 to 3 yrs.
Beans, Bush	1 qt.	15 to 24 in.	3 to 6 in.	April to July	40 to 65 days
Beans, Pole	½ pt.	3 to 4 ft.	3 to 4 ft.	May and June	50 to 80 days
Beets	2 oz.	12 to 16 in.	3 to 6 in.	April to August	60 to 80 days
*Brussels Sprouts	1 pkt.	24 to 30 in.	16 to 24 in.	May and June	90 to 120 days
*Cabbage, Early	1 pkt.	24 to 30 in.	12 to 18 in.	March and April	90 to 130 days
*Cabbage, Late	1 pkt.	24 to 36 in.	16 to 24 in.	May and June	90 to 130 days
*Cardoon	½ oz.	2 ft.	12 to 18 in.	April and May	5 to 6 mos.
Carrot	1 oz.	12 to 15 in.	3 to 6 in.	April to June	75 to 110 days
*Cauliflower	¼ oz.	24 to 30 in.	16 to 24 in.	April to June	100 to 130 days
*Celeriac	1 pkt.	18 to 24 in.	5 to 6 in.	May and June	100 to 150 days
*Celery	1 pkt.	18 to 36 in.	4 to 8 in.	May and June	120 to 150 days
*Chervil	1 pkt.	18 in.	6 to 8 in.	May	120 days
Chicory	1 pkt.	18 to 24 in.	4 to 6 in.	May and June	5 to 6 mos.
Collards	1 pkt.	24 in.	14 to 18 in.	Late spring	100 to 120 days
Corn Salad	2 ozs.	12 to 18 in.	3 to 6 in.	March to Sept.	60 days
Corn, Sweet	1 carton	30 to 36 in.	15 to 24 in.	May to July	60 to 100 days
Cucumber	1 pkt.	4 to 6 ft.	4 to 6 ft.	April to July	60 to 80 days
Dandelion	1 pkt.	18 in.	8 in.	Early spring	6 to 12 mos.
*Eggplant	½ oz.	24 in.	18 in.	May	100 to 140 days
Endive	1 oz.	18 in.	8 to 12 in.	April to July	90 days
Horse-Radish	75 roots	24 to 30 in.	14 to 20 in.	Early spring	1 to 2 yrs.
*Kale, or Borecole.....	1 pkt.	18 to 24 in.	18 to 24 in.	August and Sept.	90 to 120 days
*Kohlrabi	1 pkt.	15 to 24 in.	6 to 8 in.	March to May	60 to 80 days
Leek	1 oz.	12 to 16 in.	4 to 8 in.	March to May	120 to 180 days
Lettuce	1 pkt.	10 to 15 in.	6 in.	March to Sept.	60 to 90 days
Melon, Musk	1 pkt.	6 to 8 ft.	Hills, 6 ft.	April to June	120 days
Melon, Water	1 oz.	8 ft.	Hills, 10 ft.	May and June	100 to 120 days
Mustard	1 pkt.	12 in.	4 to 6 in.	March to May	60 to 90 days
New Zealand Spinach. 1 oz.	24 to 36 in.	12 to 18 in.	Early spring	60 to 100 days	
Okra, or Gumbo.....	2 ozs.	3 to 4 ft.	24 to 30 in.	May and June	90 to 140 days
Onion Seed	1 oz.	12 to 15 in.	3 to 6 in.	April and May	130 to 150 days
Onion Sets	2 qts.	12 to 15 in.	3 to 6 in.	March to May	90 to 120 days
Parsley	1 pkt.	12 in.	6 in.	Early spring	90 to 120 days
Parsnip	1 oz.	18 in.	4 to 6 in.	April and May	160 days
Peas	1 qt.	24 to 36 in.	3 to 6 in.	March to June	50 to 80 days
*Pepper	1 pkt.	18 to 24 in.	15 in.	May and June	100 to 140 days
Potato, Irish	½ peck	24 to 36 in.	15 in.	March to June	80 to 140 days
Potato, Sweet	75 slips	3 to 4 ft.	15 in.	May and June	140 to 160 days
Pumpkin	1 pkt.	8 to 10 ft.	Hills, 8 ft.	May to July	100 to 140 days
Radish	1 oz.	6 to 12 in.	3 to 4 in.	March to Sept.	20 to 40 days
Rhubarb Plants	33	3 to 4 ft.	3 ft.	Early spring	1 to 3 yrs.
Rutabaga	1 pkt.	18 to 24 in.	6 to 8 in.	May and June	60 to 80 days
Salsify	1 oz.	18 to 24 in.	4 in.	Early spring	120 to 180 days
Spinach	1 oz.	12 to 18 in.	4 to 6 in.	Early spring	30 to 60 days
Squash, Bush	1 pkt.	3 to 4 ft.	Hills, 3 to 4 ft.	April to June	60 to 80 days
Squash, Late	1 pkt.	6 ft.	Hills, 6 ft.	April to June	120 to 160 days
Swiss Chard	1 oz.	16 in.	12 in.	April	60 days
Vegetable Marrow	1 pkt.	8 ft.	Hills, 8 ft.	April to June	110 to 140 days
*Tomato	1 pkt.	3 to 4 ft.	2 to 3 ft.	May and June	100 to 140 days
Turnip	1 pkt.	18 in.	3 to 6 in.	April (July)	60 to 80 days
Winter Chicory, or French Endive.....	1 oz.	18 to 24 in.	12 to 15 in.	June and July	Autumn and Winter

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For further information and cultural directions, refer to notes given under the heading of each variety.



Barnard's
Seeds

The W. W. Barnard Co.
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